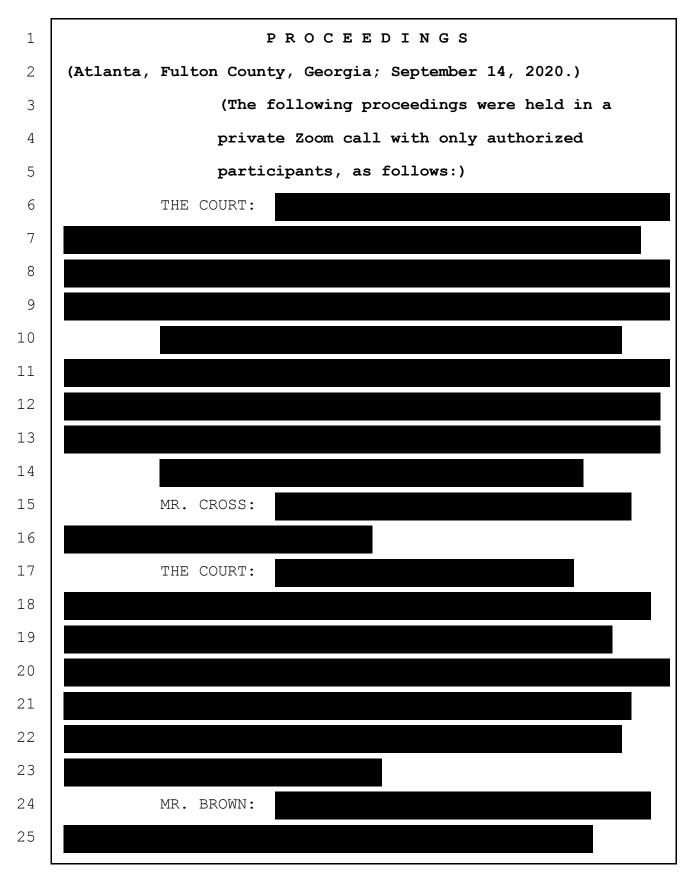
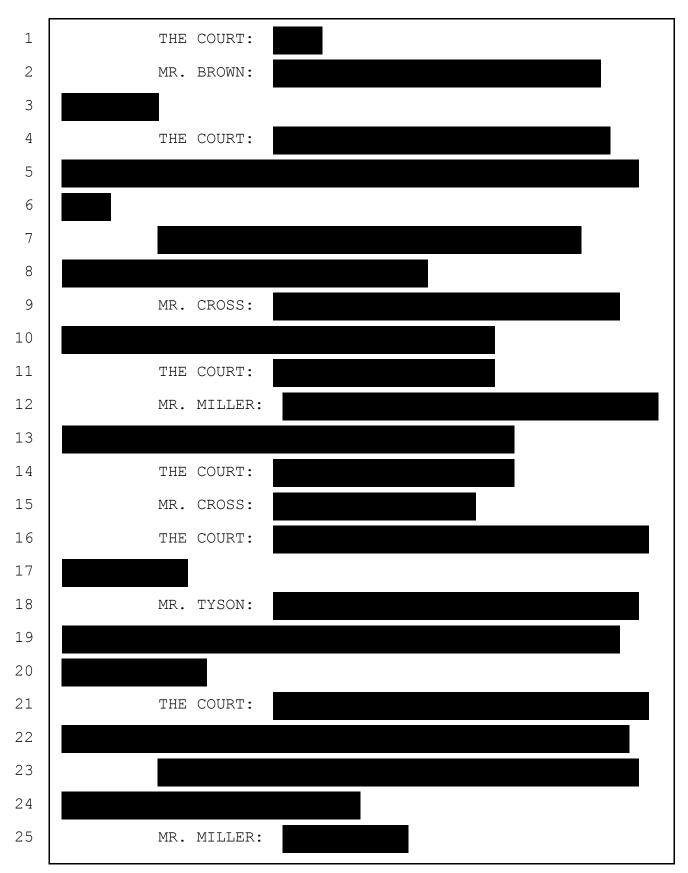
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1	IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA
2	ATLANTA DIVISION
3	
4	DONNA CURLING, ET AL., :
5	PLAINTIFFS, : DOCKET NUMBER
6	: 1:17-CV-2989-AT
7	BRAD RAFFENSPERGER, ET AL., :
8	DEFENDANTS. :
9	
10	TRANSCRIPT OF HEARING ON PRELIMINARY INJUNCTION VIA ZOOM
11	PROCEEDINGS
12	BEFORE THE HONORABLE AMY TOTENBERG
13	UNITED STATES DISTRICT JUDGE
14	SEPTEMBER 14, 2020
15	9:32 A.M.
16	VOLUME 3
17	REDACTED
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21	MECHANICAL STENOGRAPHY OF PROCEEDINGS AND COMPUTER-AIDED
22	TRANSCRIPT PRODUCED BY:
23	
24	OFFICIAL COURT REPORTER: SHANNON R. WELCH, RMR, CRR 2394 UNITED STATES COURTHOUSE
25	75 TED TURNER DRIVE, SOUTHWEST ATLANTA, GEORGIA 30303 (404) 215-1383

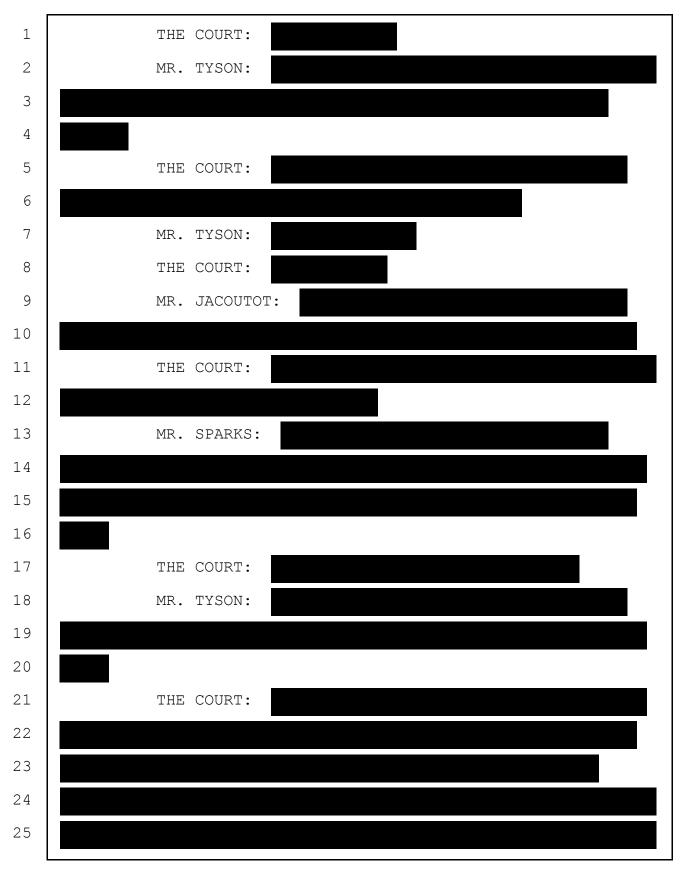
1	APPEARANCES OF COUNSEL
2	
3	FOR THE PLAINTIFFS DONNA CURLING, DONNA PRICE, JEFFREY SCHOENBERG:
4	
5	DAVID D. CROSS VERONICA ASCARRUNZ
6	EILEEN BROGAN MORRISON & FOERSTER, LLP
7	HALSEY G. KNAPP, JR.
8	ADAM M. SPARKS KREVOLIN & HORST, LLC
9	MEVOLIN & HONSI, LLC
10	FOR THE PLAINTIFFS COALITION FOR GOOD GOVERNANCE, LAURA DIGGES,
11	WILLIAM DIGGES, III, AND RICARDO DAVIS:
12	BRUCE BROWN
13	BRUCE P. BROWN LAW
14	ROBERT ALEXANDER McGUIRE, III (VIA VIDEO CONFERENCE) ROBERT McGUIRE LAW FIRM
15	ROBERT FROOTRE EAW TITE
16	FOR THE STATE OF GEORGIA DEFENDANTS:
17	VINCENT ROBERT RUSSO, JR.
18	CAREY A. MILLER ROBBINS ROSS ALLOY BELINFANTE LITTLEFIELD, LLC
19	ROBBINS ROSS ALLOY BELINFANIE LITTLEFIELD, LLC
20	BRYAN P. TYSON BRYAN JACATOUT
21	DIANE LAROSS
22	LOREE ANNE PARADISE TAYLOR ENGLISH DUMA
23	
24	
25	
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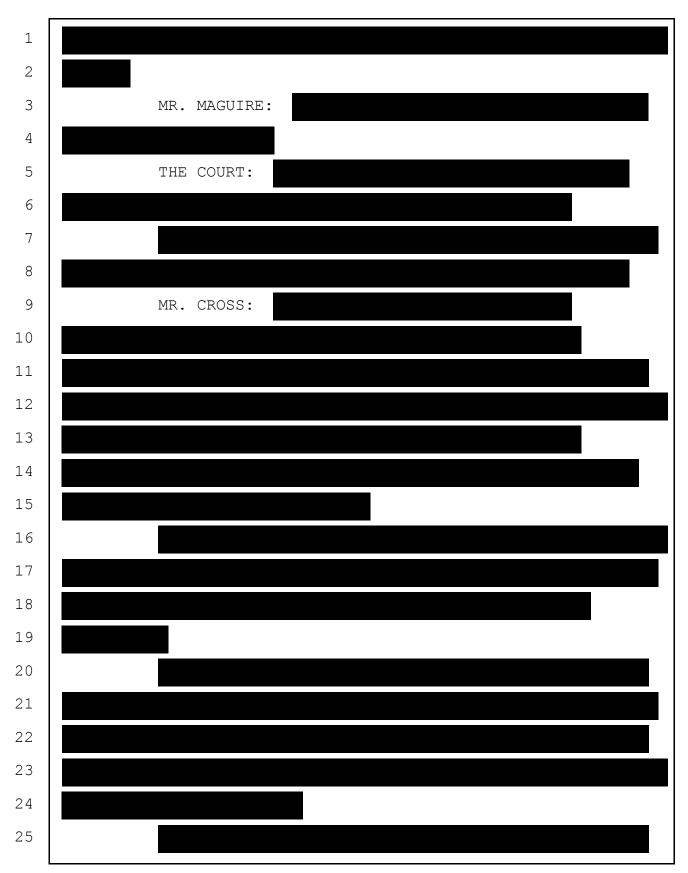
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(...cont'd....)
 1
 2
     FOR THE FULTON COUNTY DEFENDANTS:
 3
          CHERYL RINGER
 4
          KAYE BURWELL
          OFFICE OF THE FULTON COUNTY ATTORNEY
 5
 6
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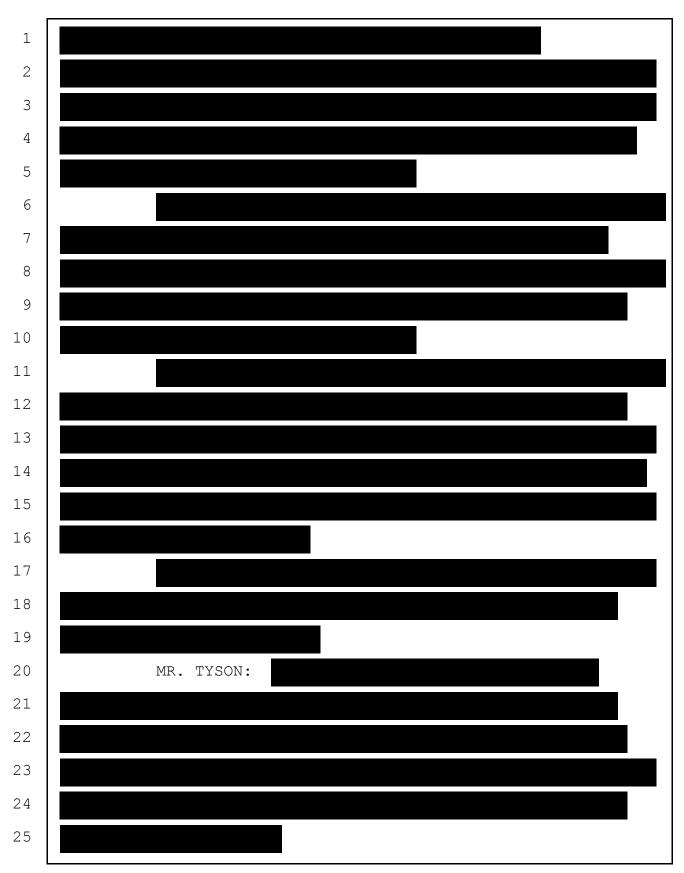
1 INDEX TO PROCEEDINGS 2 WITNESS **PAGE** 3 J. ALEX HALDERMAN, Ph.D. 4 Direct Examination (Continued) 5 22 By Ms. Ascarrunz Cross-Examination 50 6 By Mr. Tyson Examination 7 By The Court 77 8 KEVIN SKOGLUND 9 Direct Examination (Continued) By Mr. McGuire 84 10 Cross-Examination 92 By Mr. Tyson 11 Direct Examination (Continued) By Mr. McGuire 100 12 Cross-Examination By Mr. Tyson 123 13 Examination By The Court 127 14 Redirect Examination By Mr. McGuire 133 15 Recross-Examination 134 By Mr. Tyson 16 * * * 17 CLOSING ARGUMENT 18 136 by Mr. McGuire 19 147 by Mr. Tyson 171 by Mr. Cross 20 CERTIFICATE 199 21 22 23 24 25

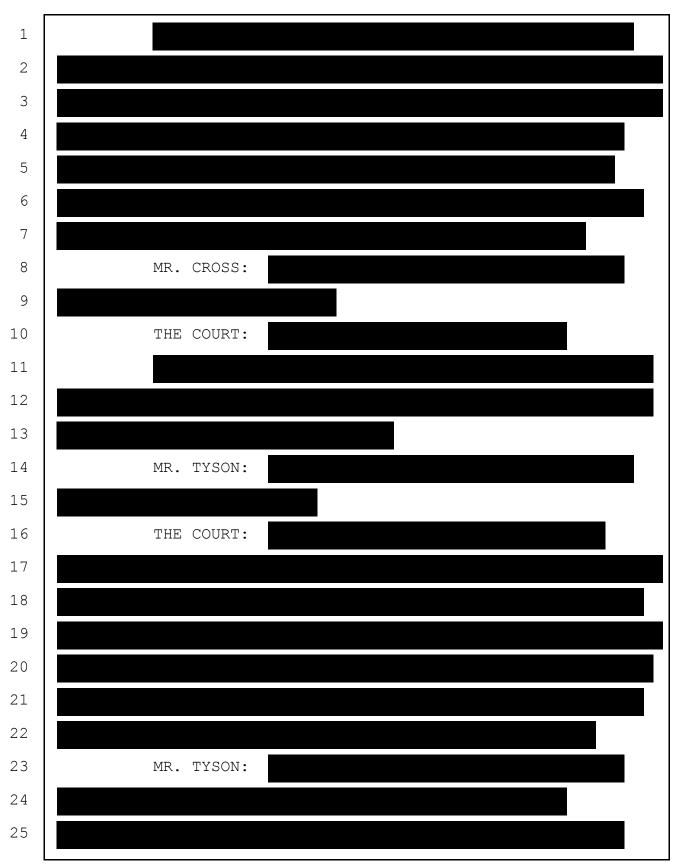


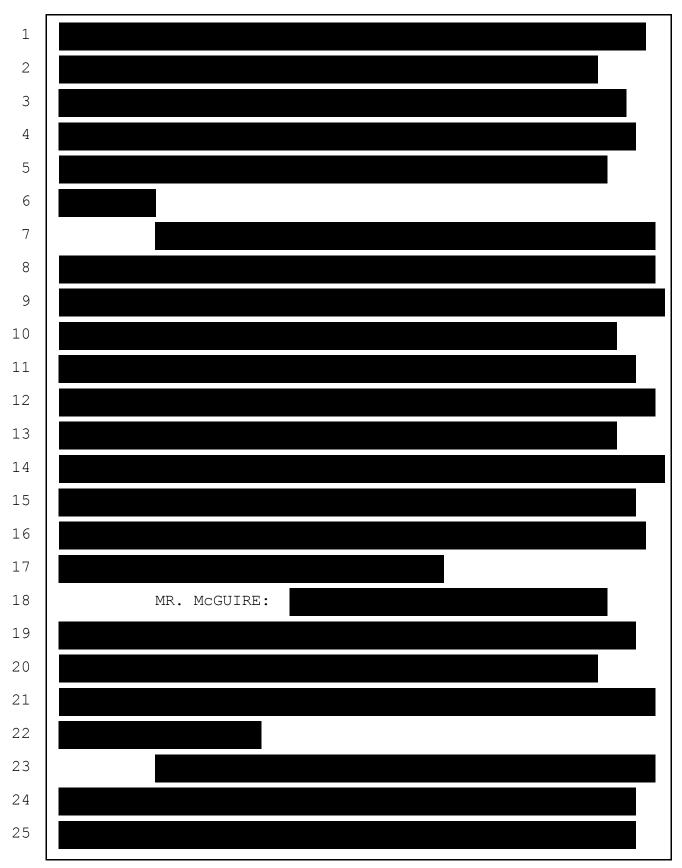


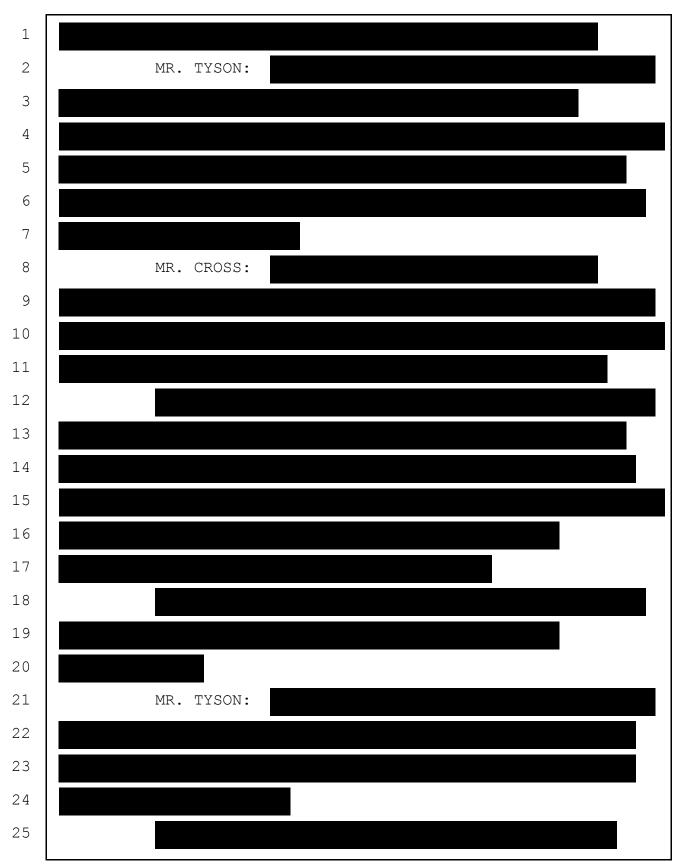


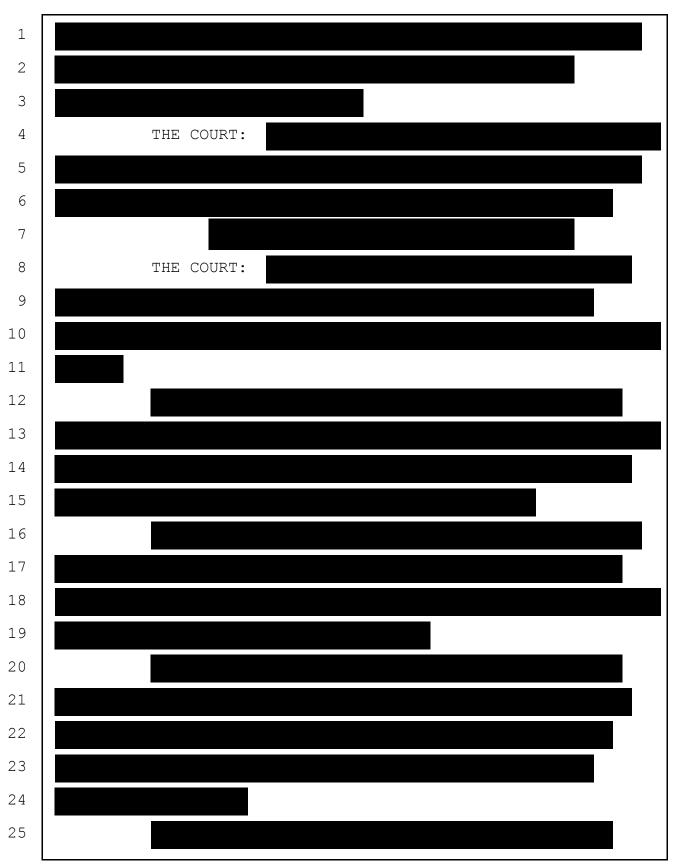


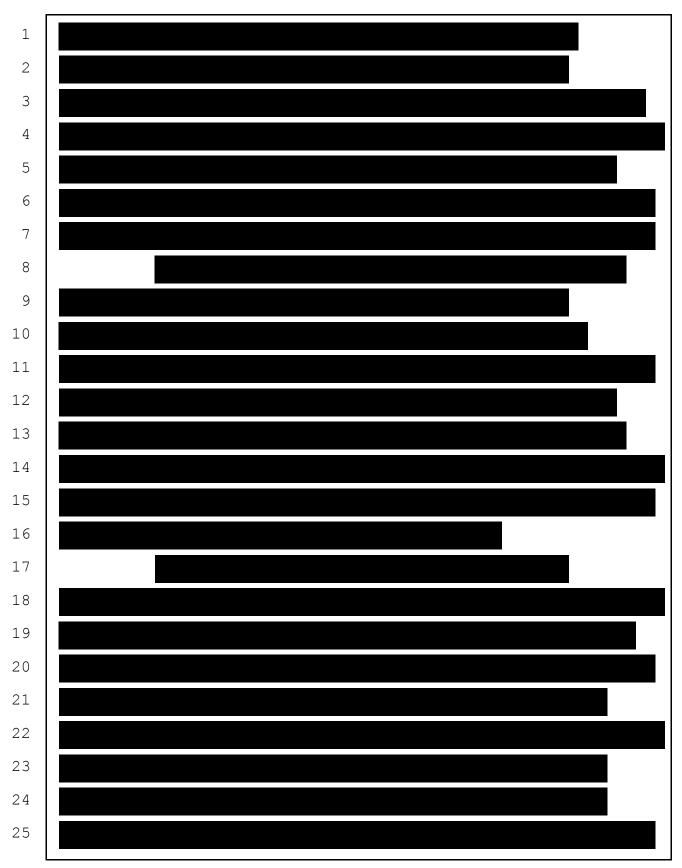


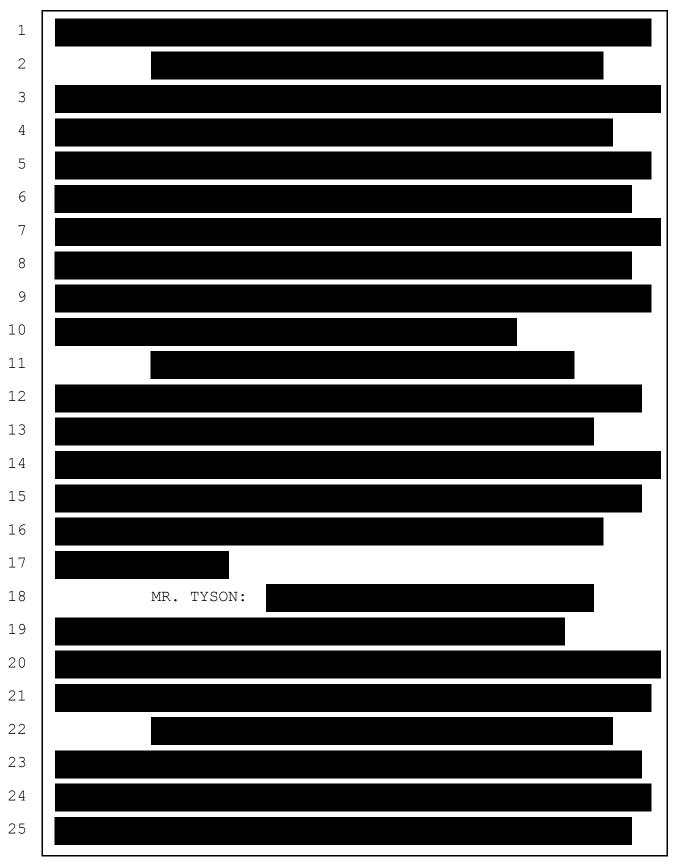


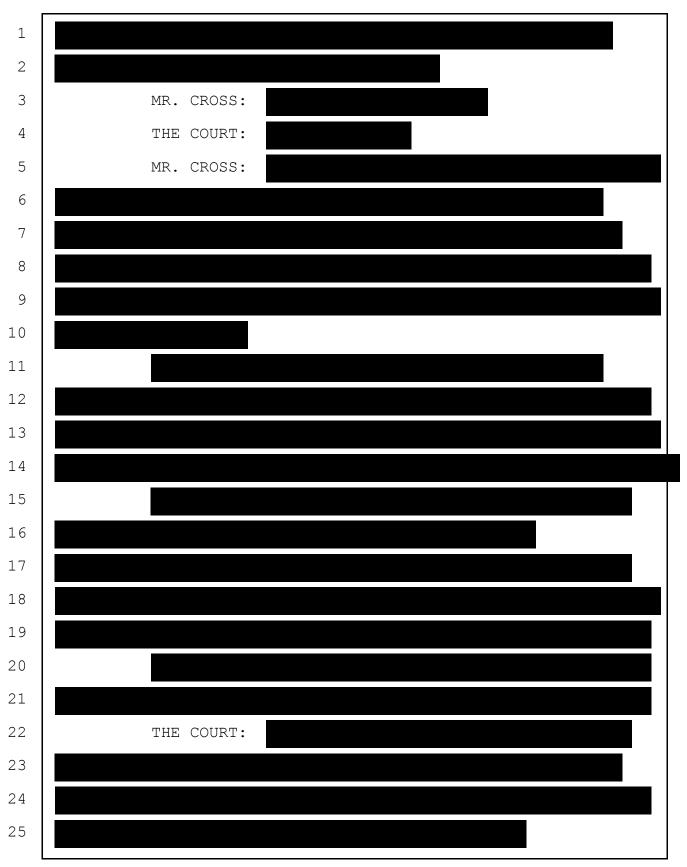


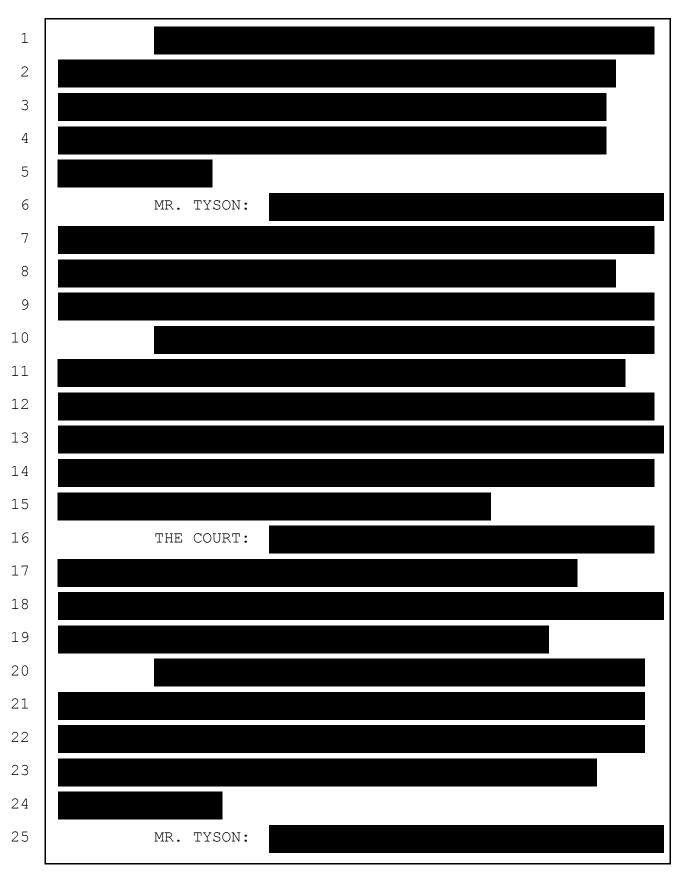


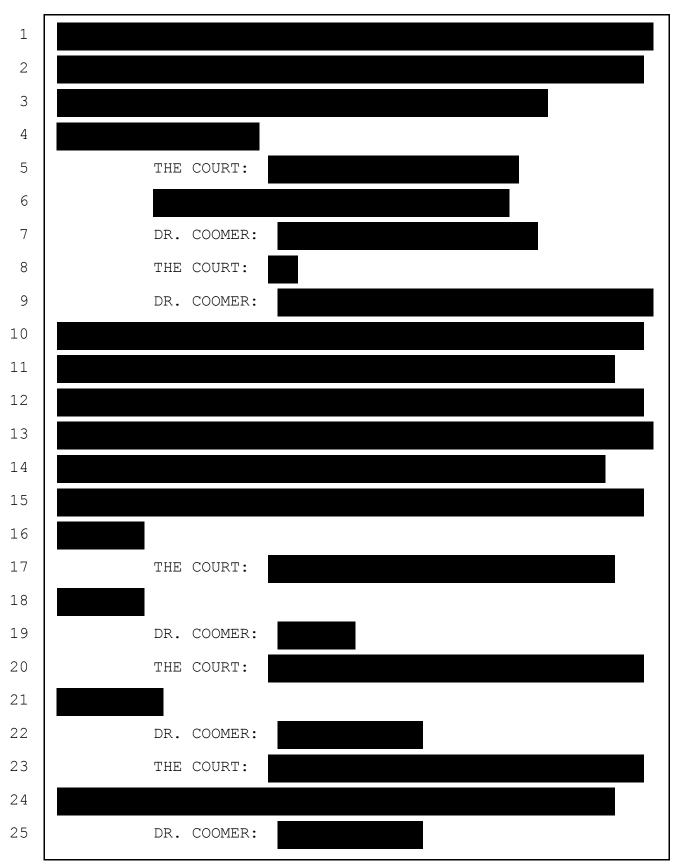


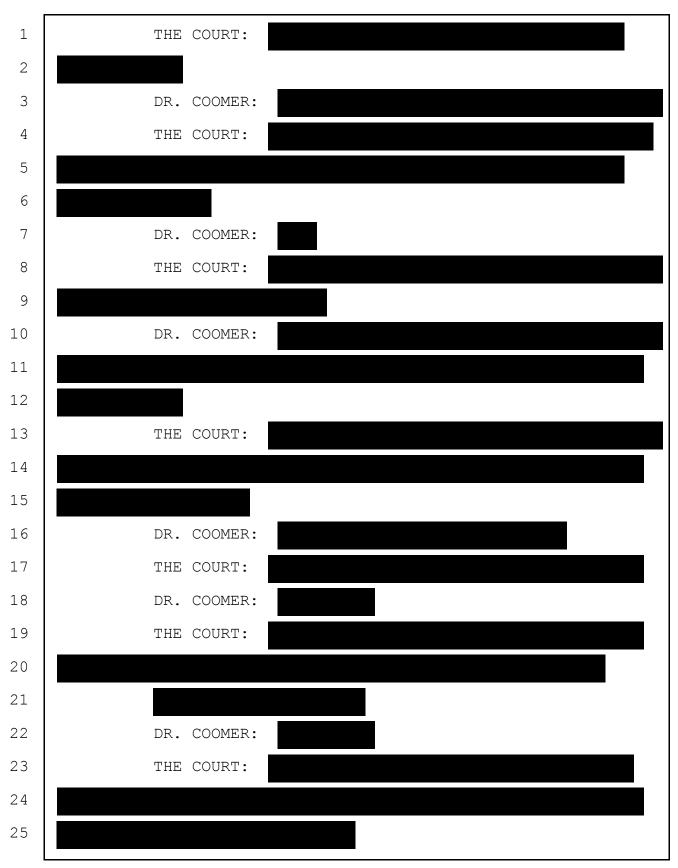


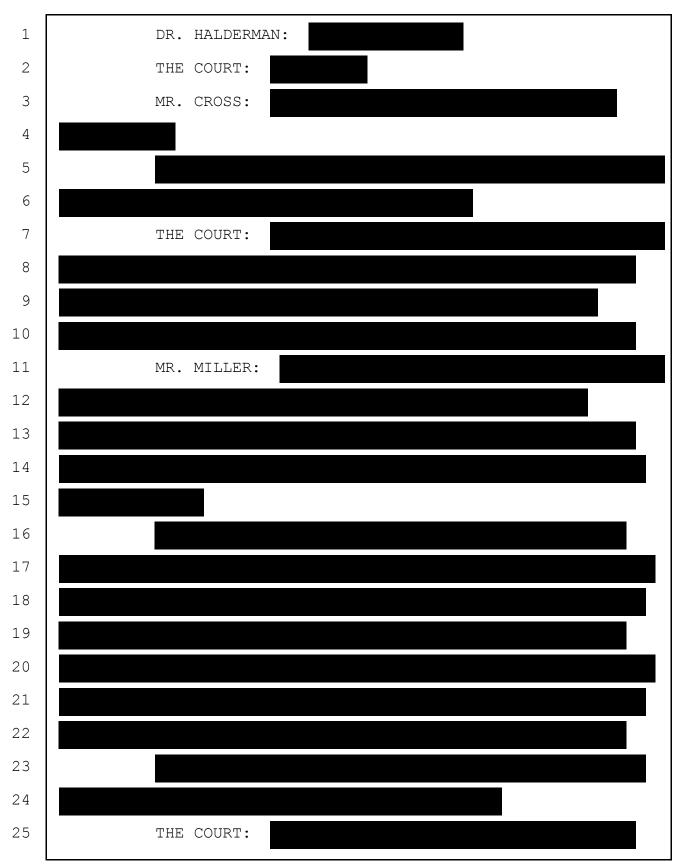


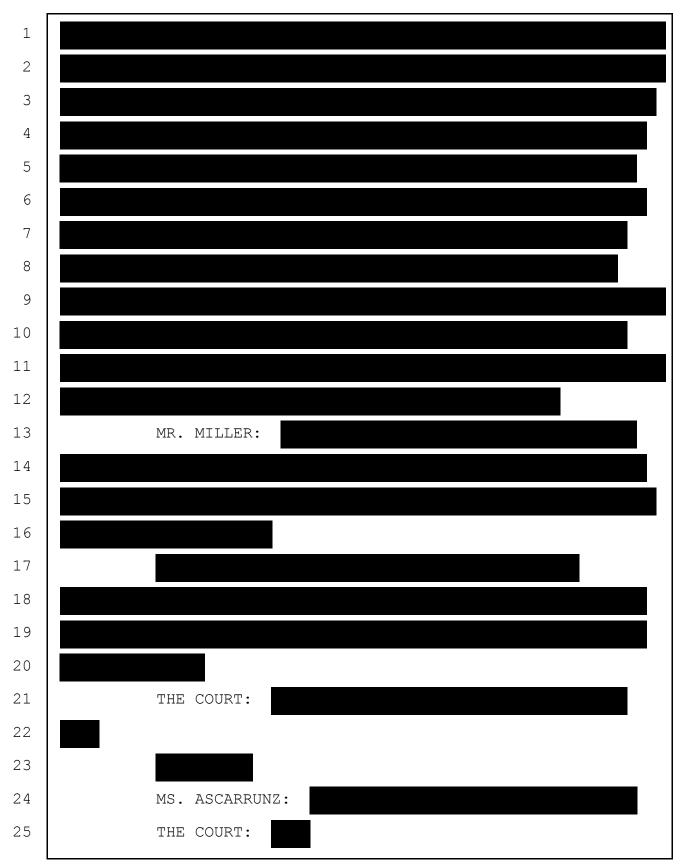


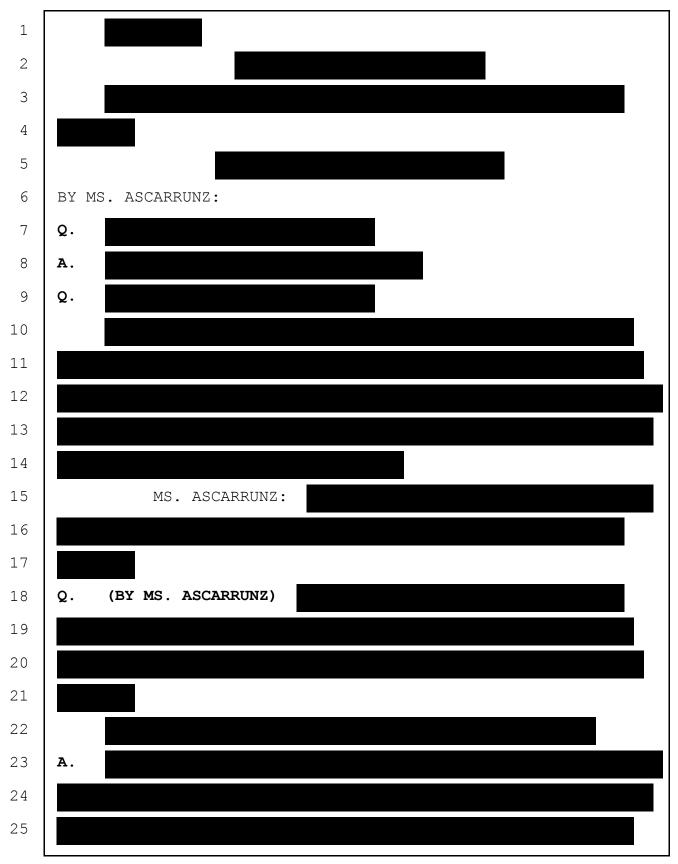


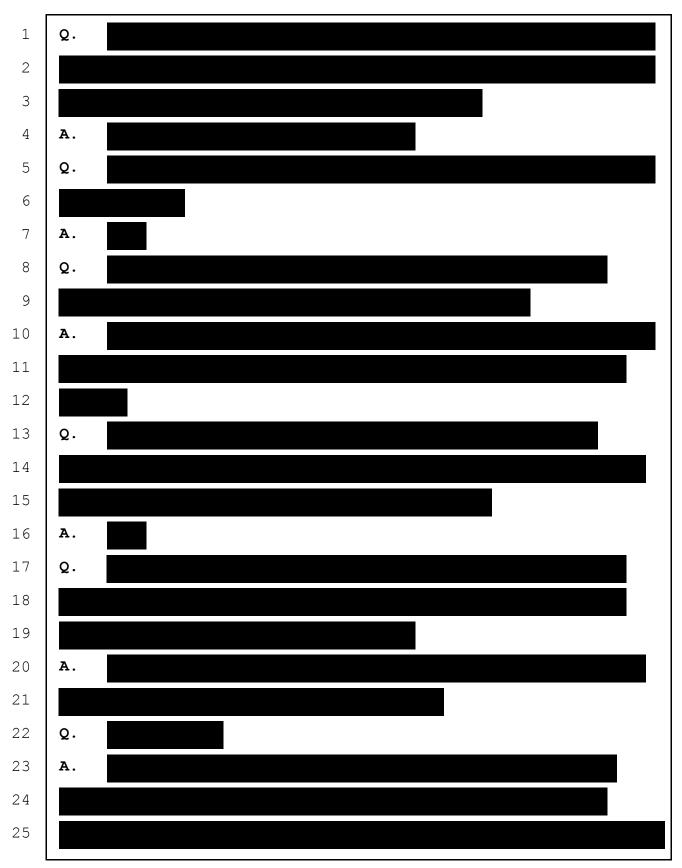


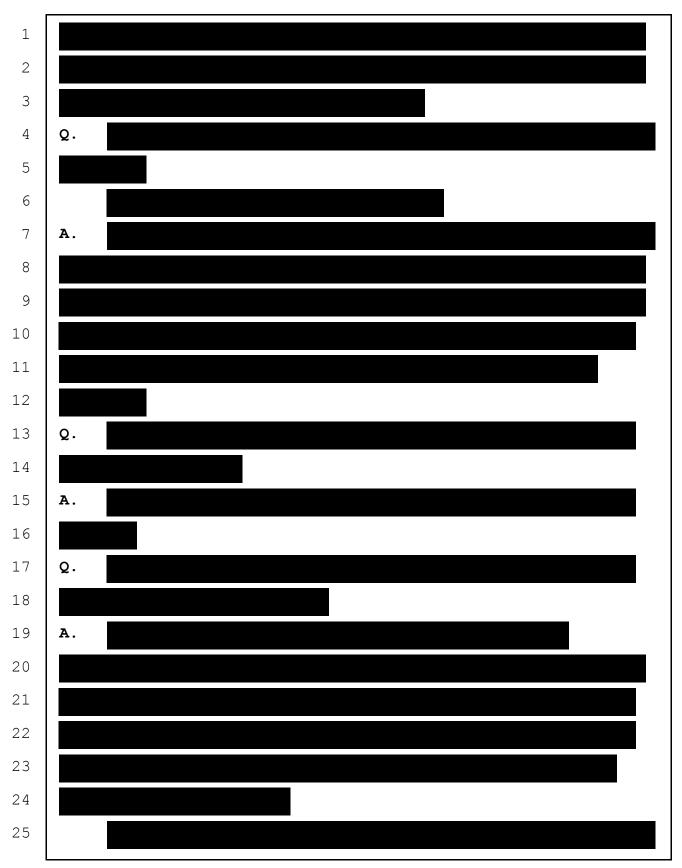




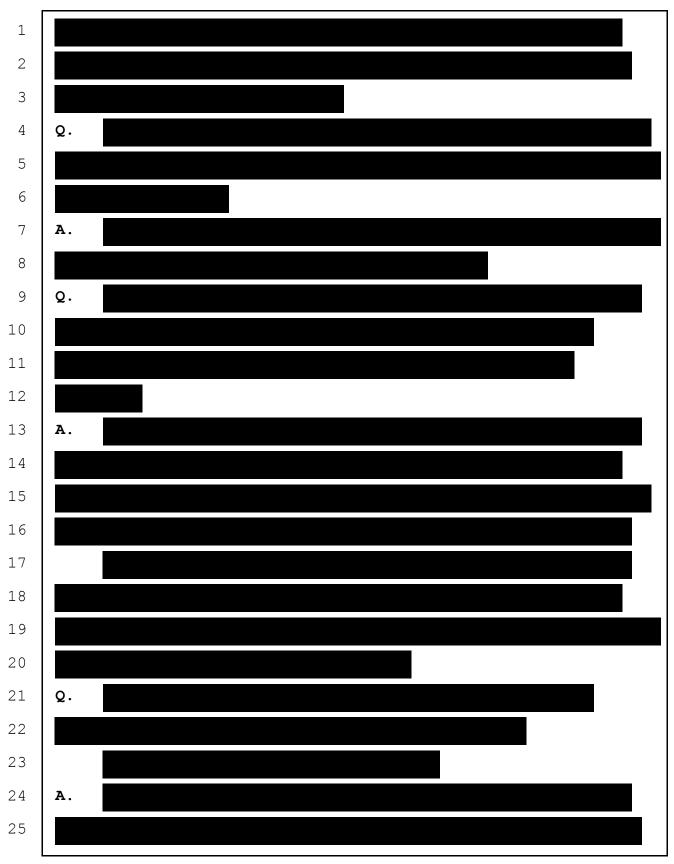




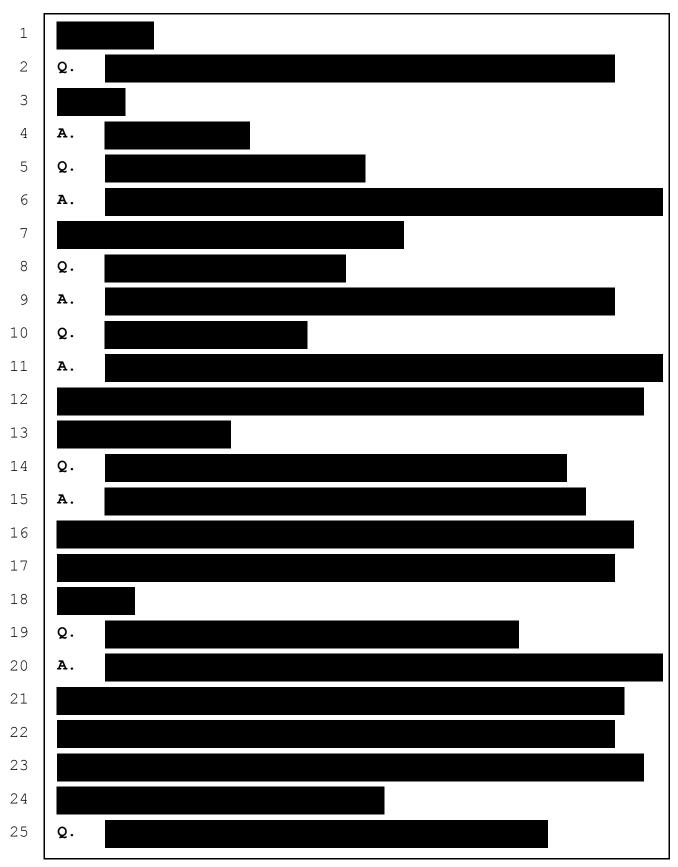




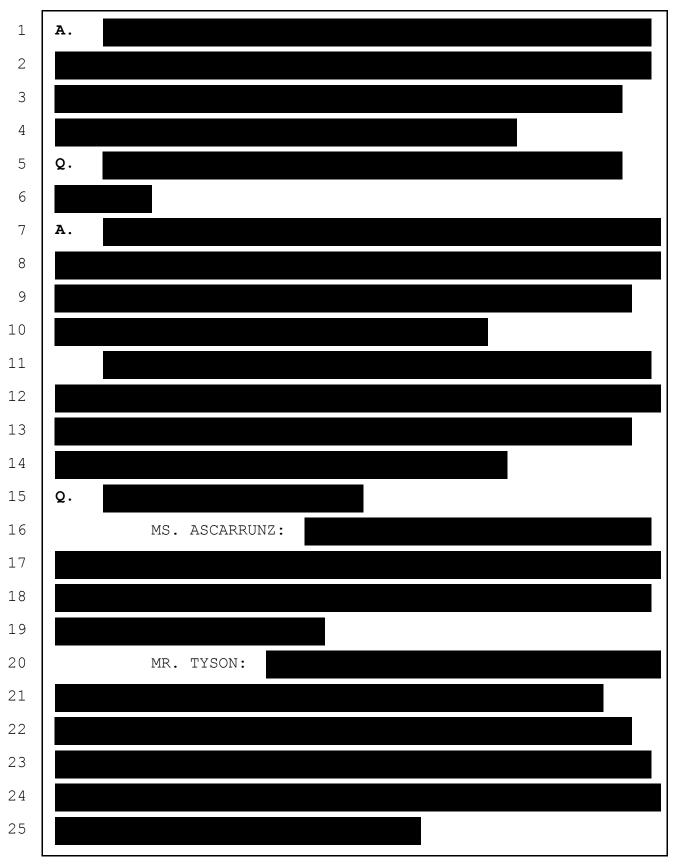
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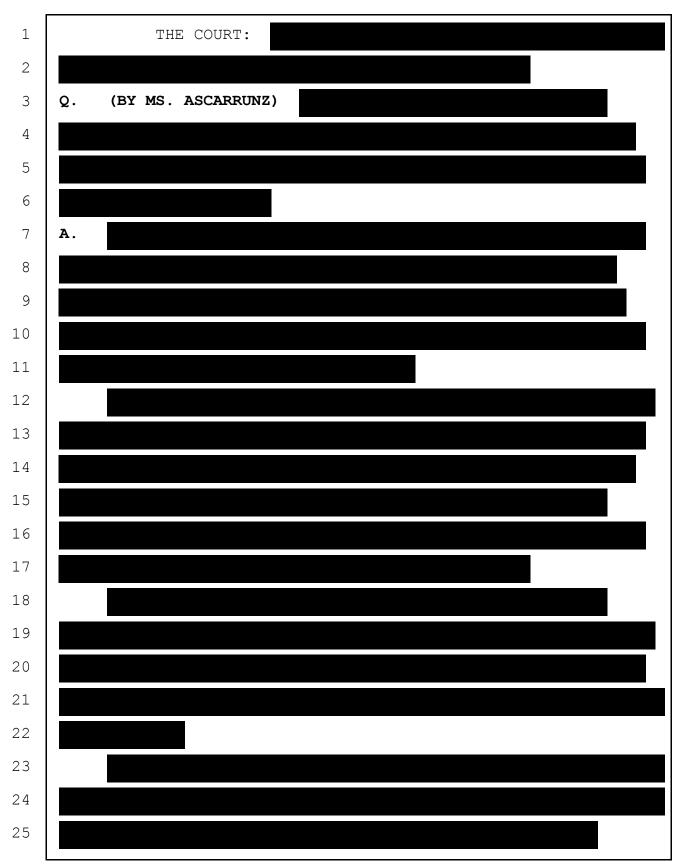


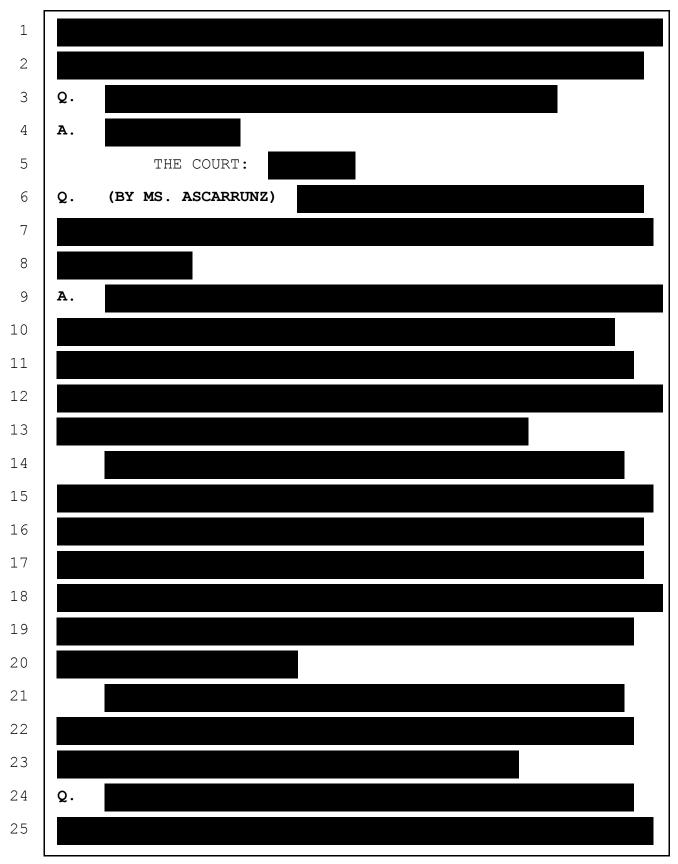
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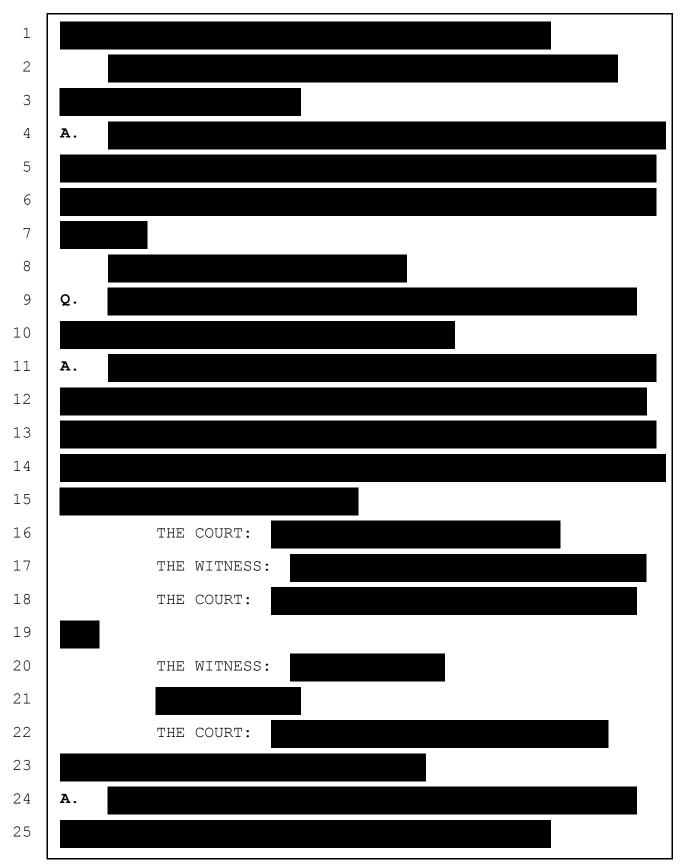


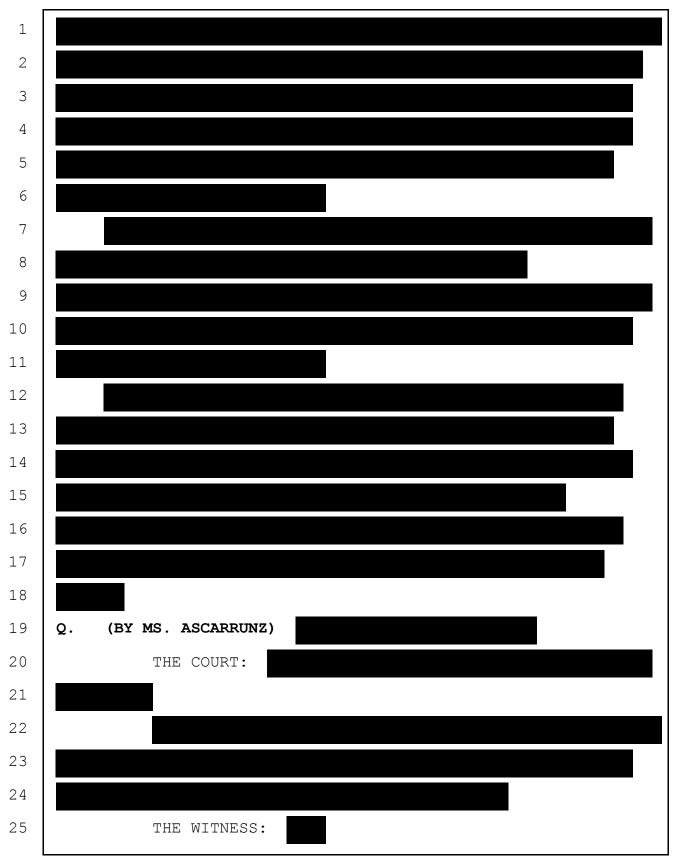
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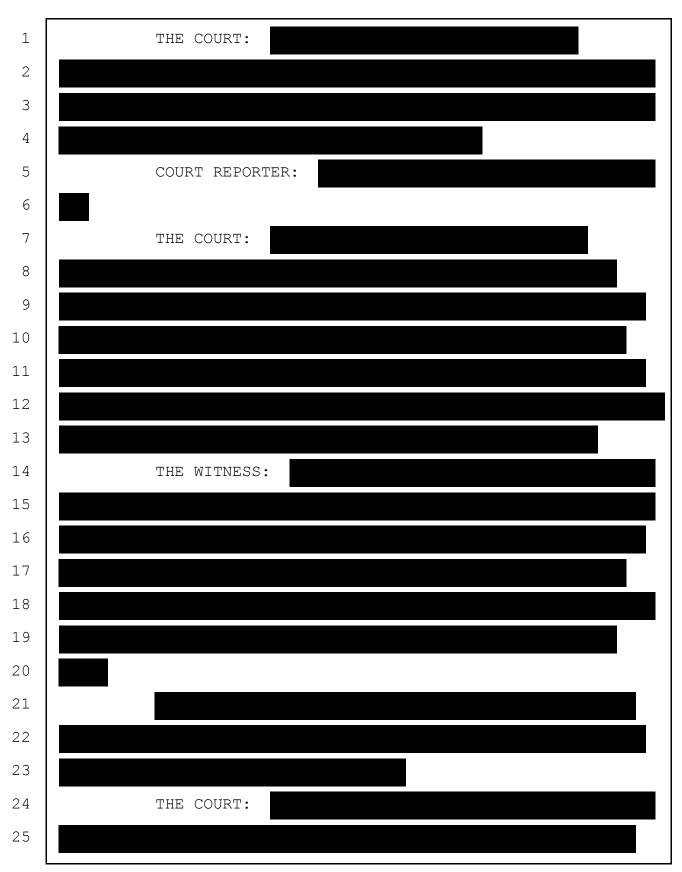


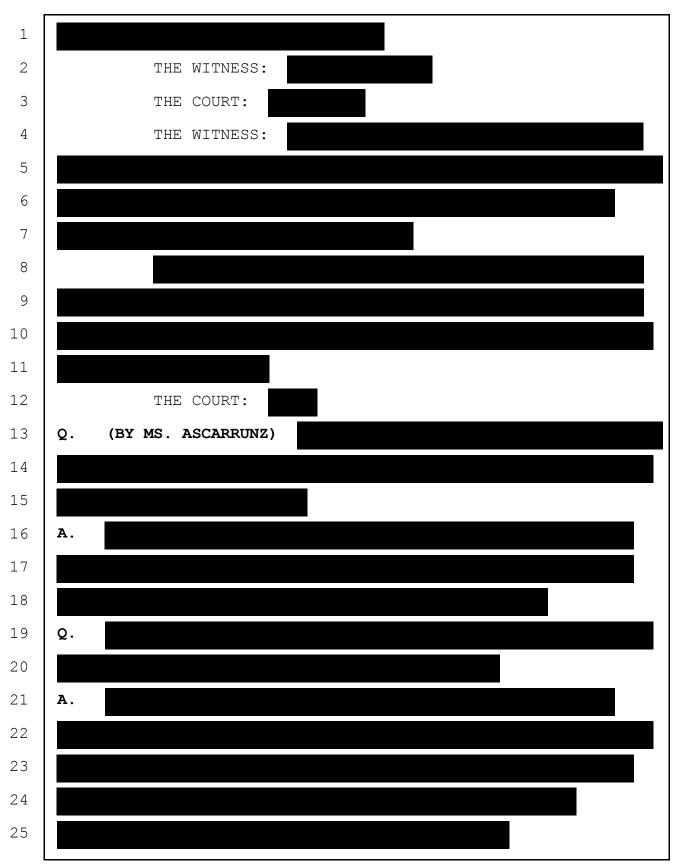


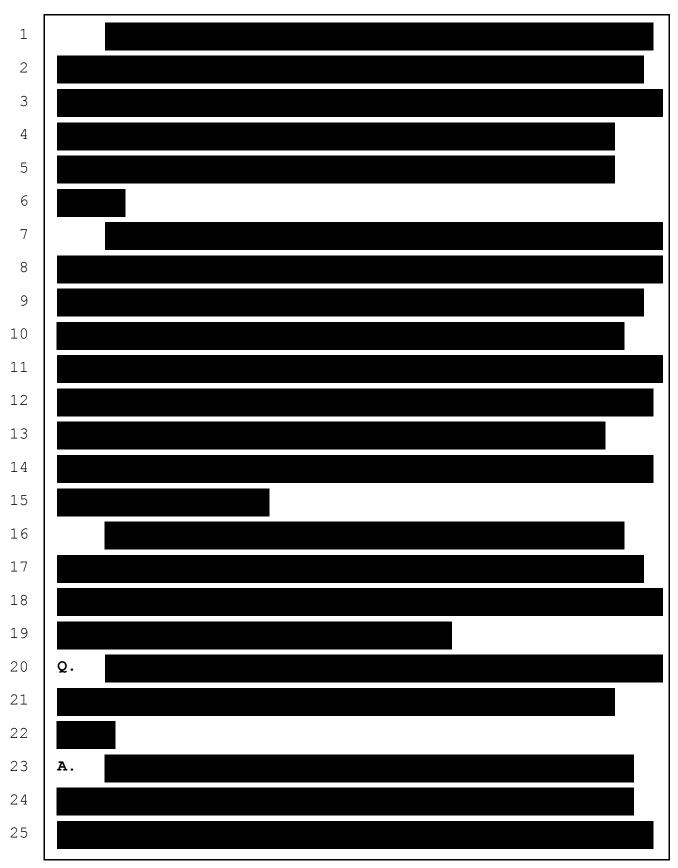


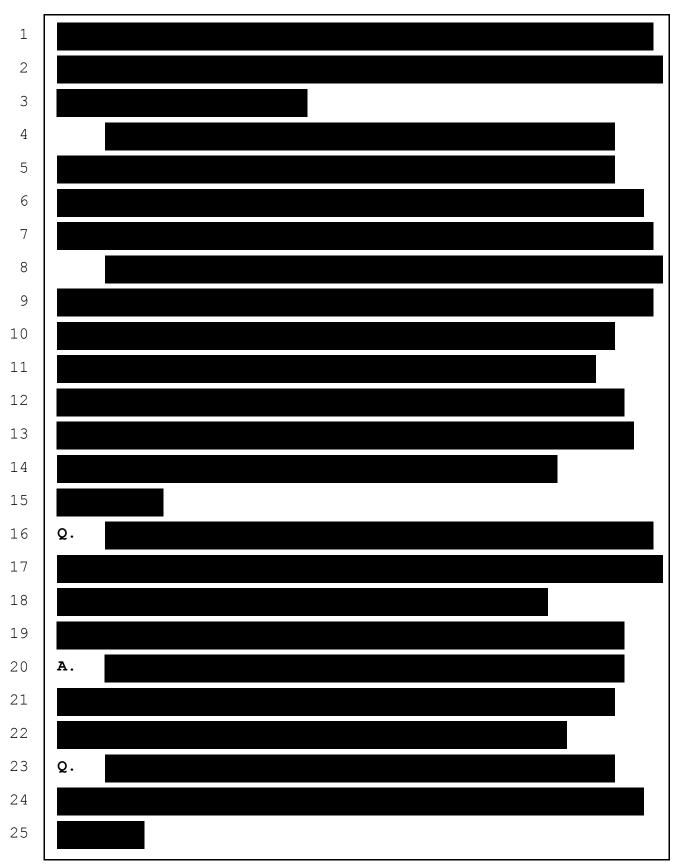




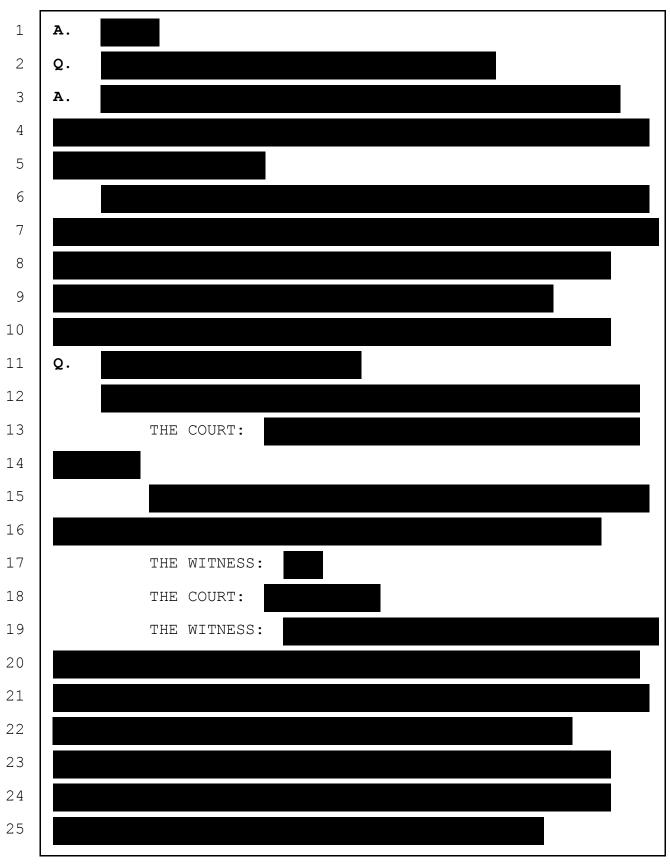


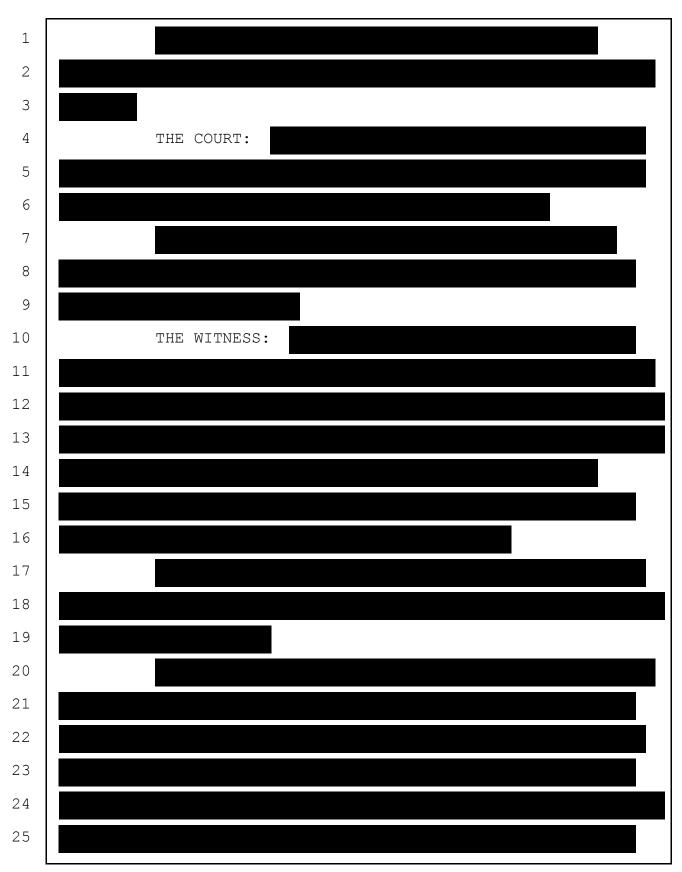


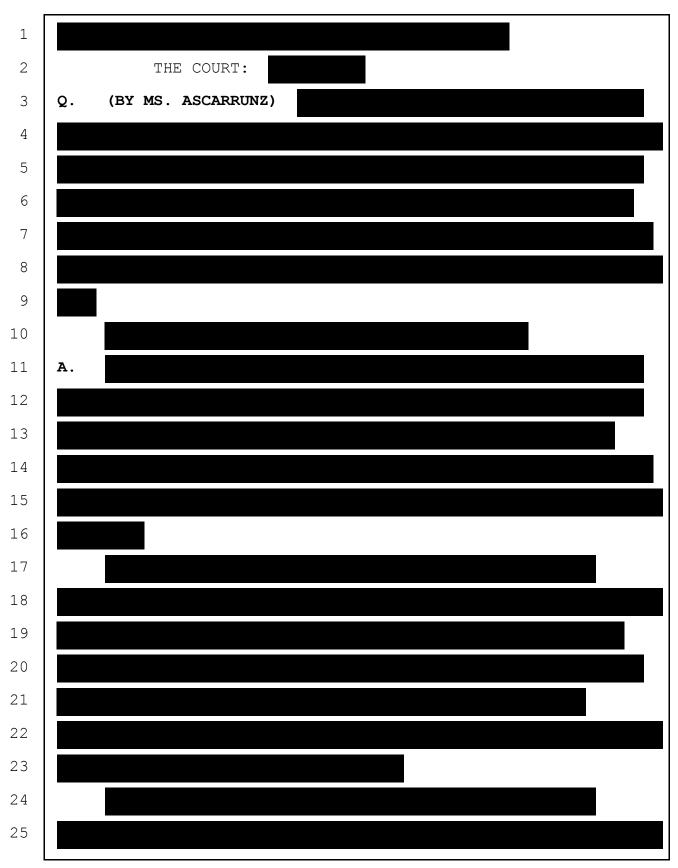


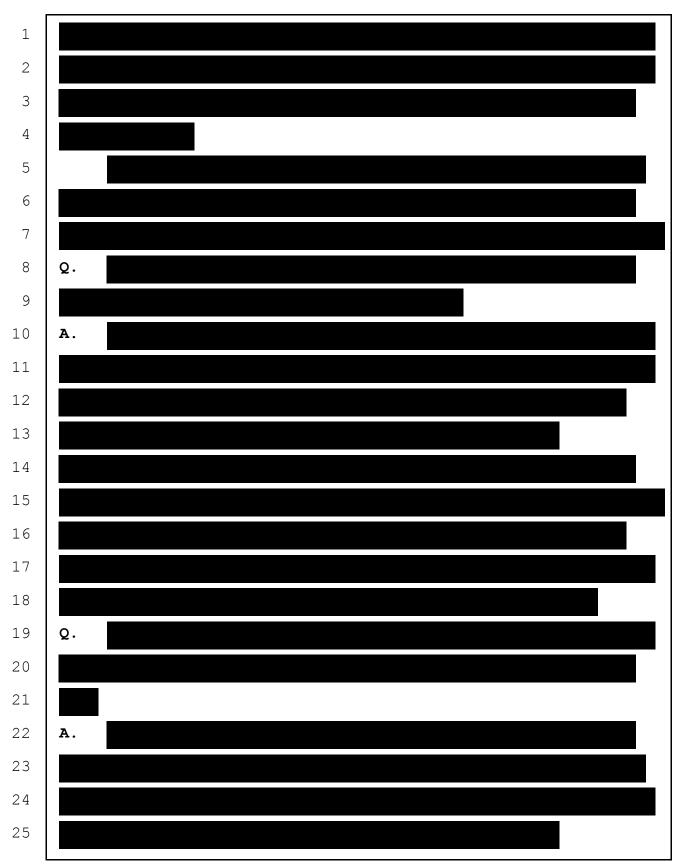


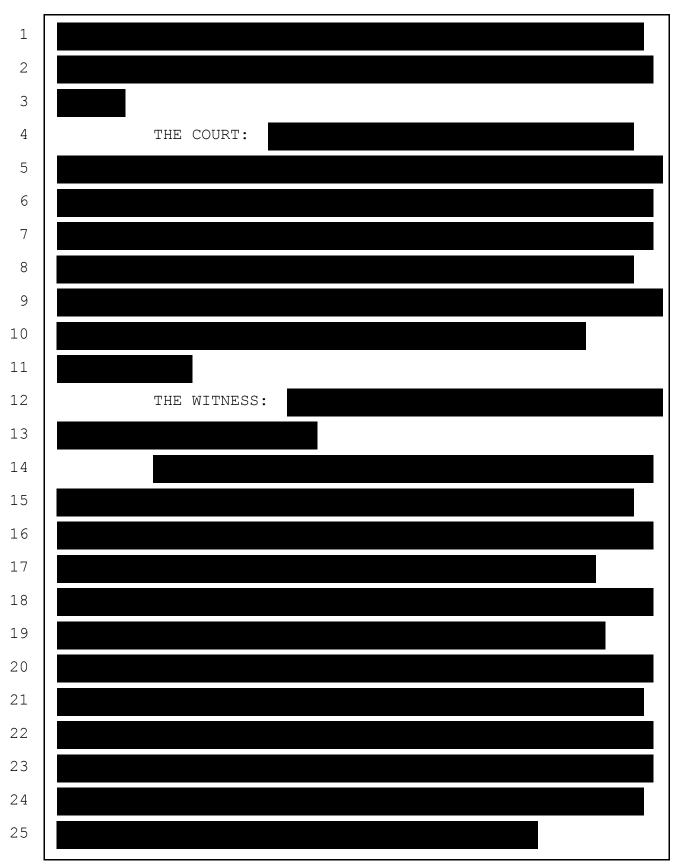
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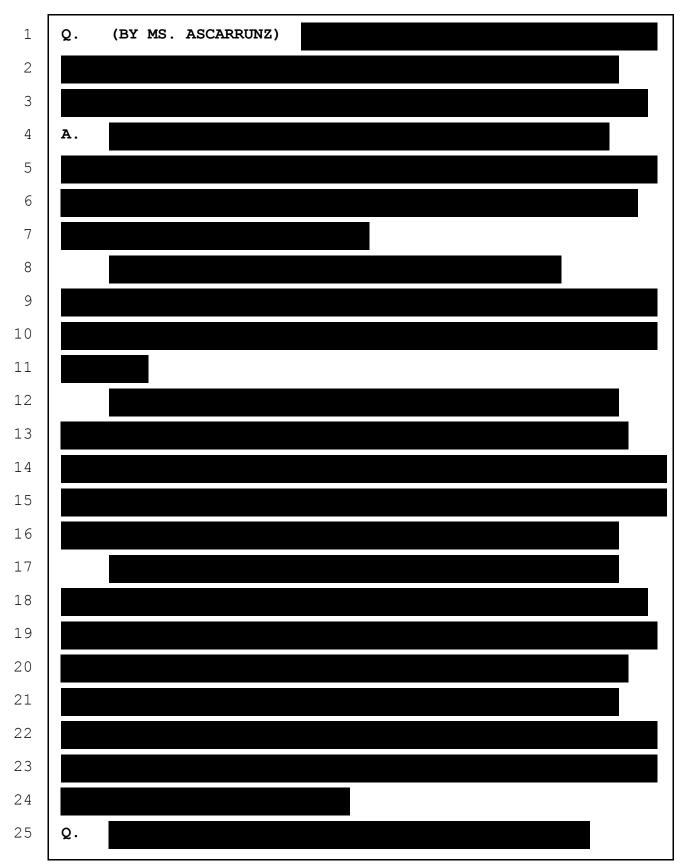


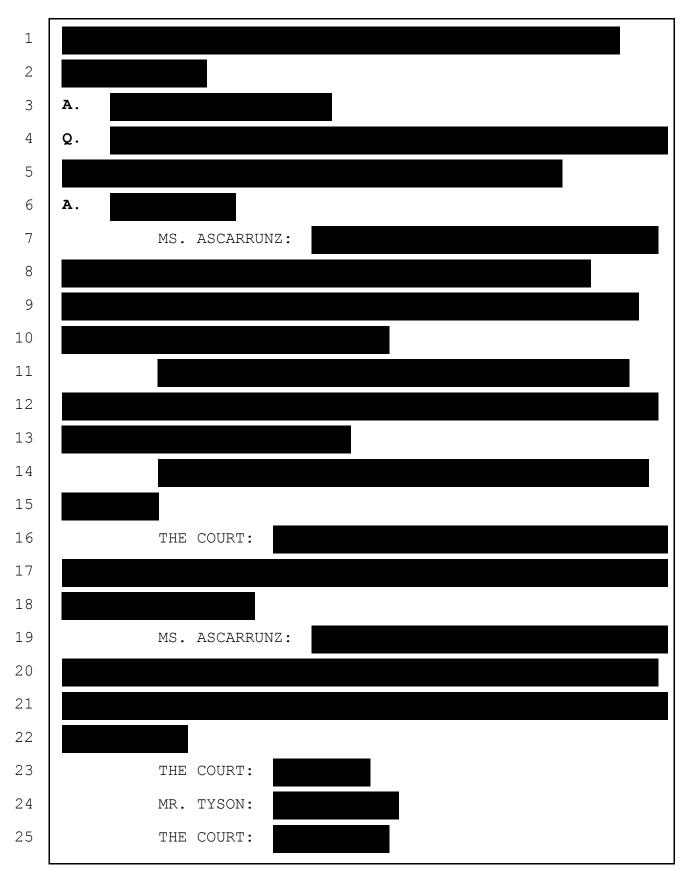


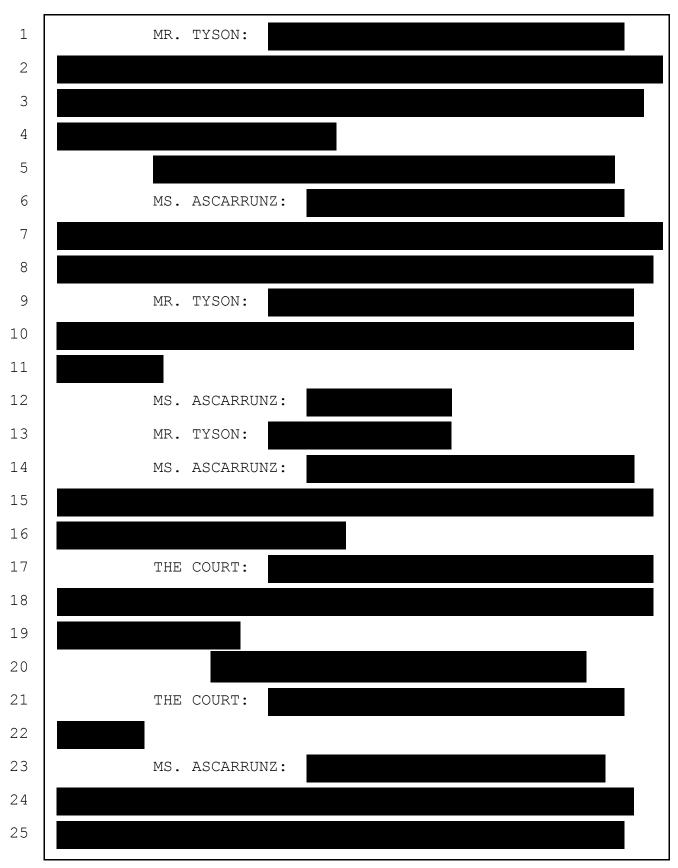


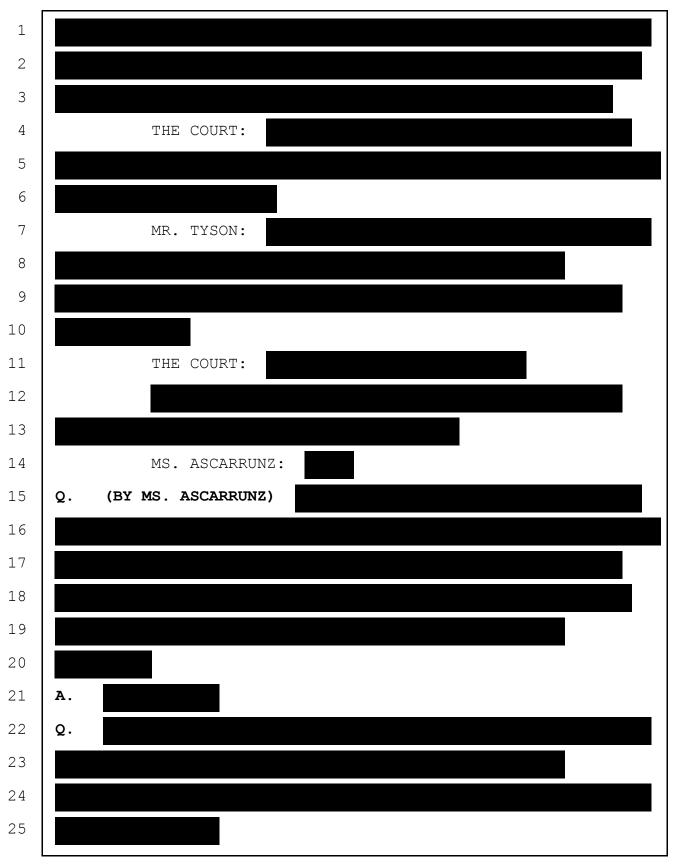


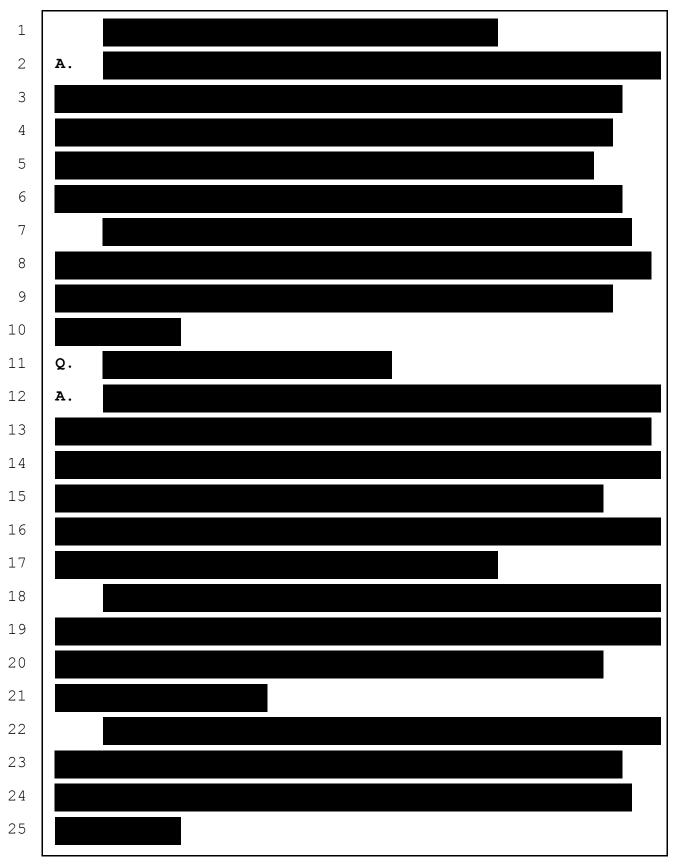


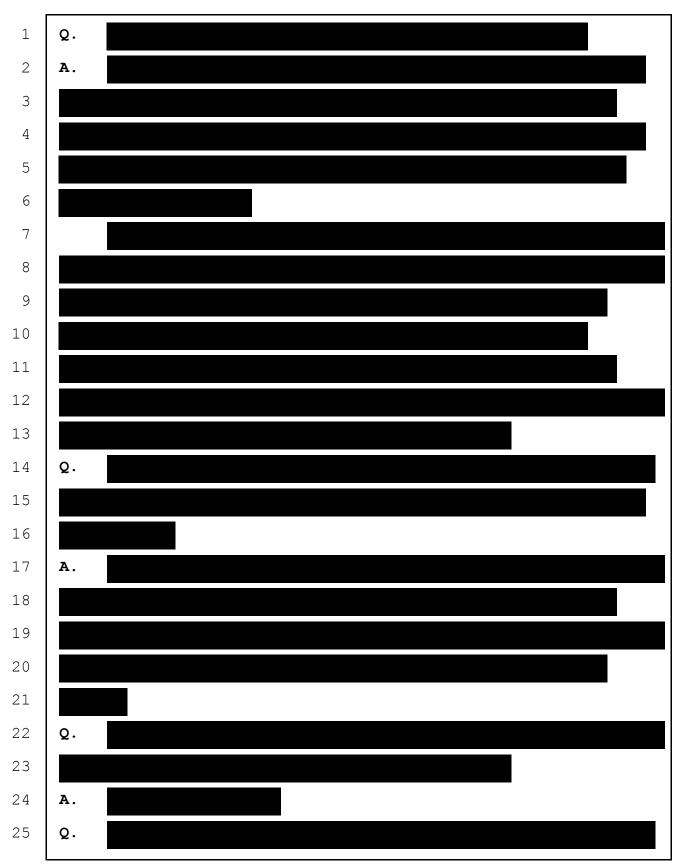


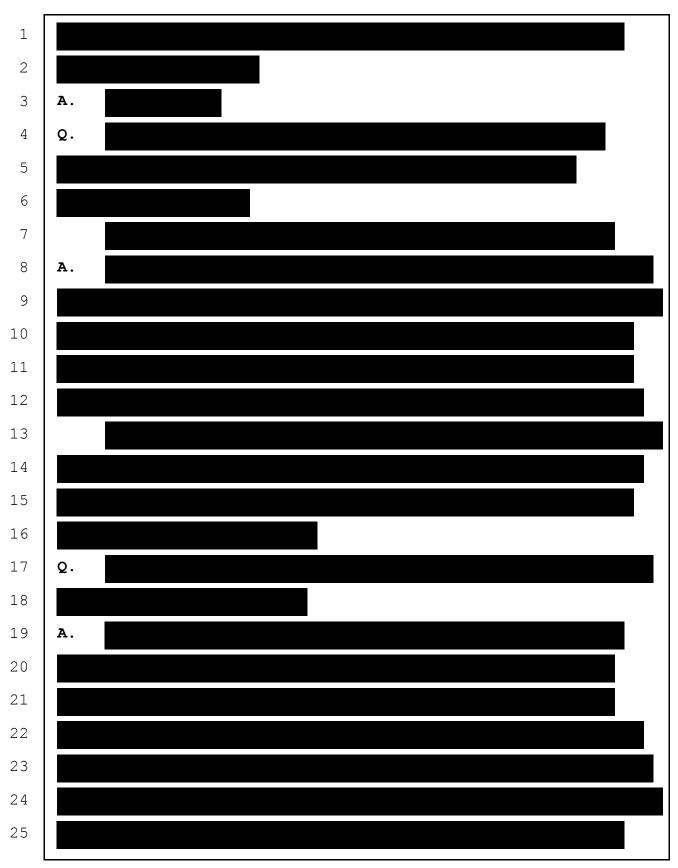




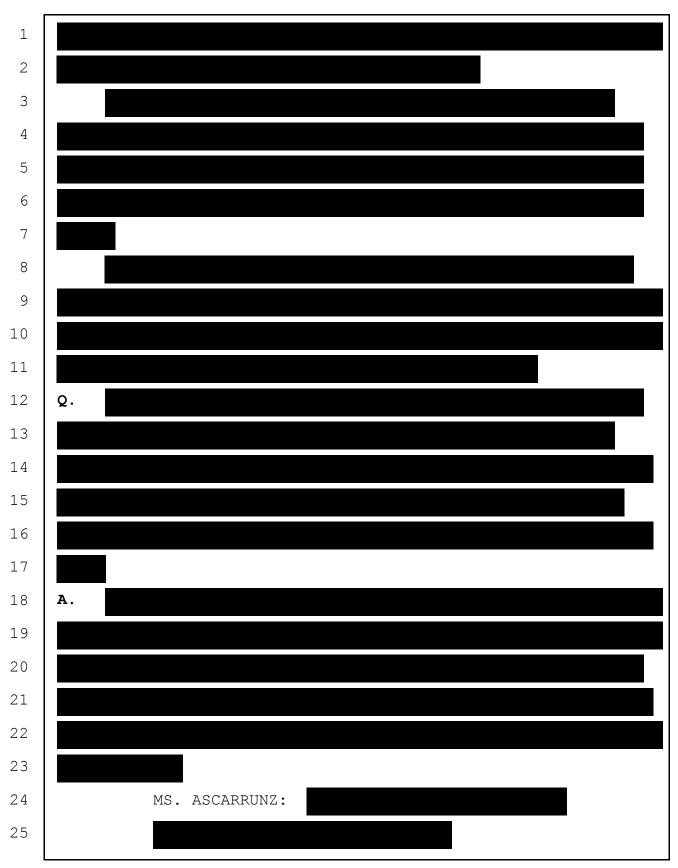


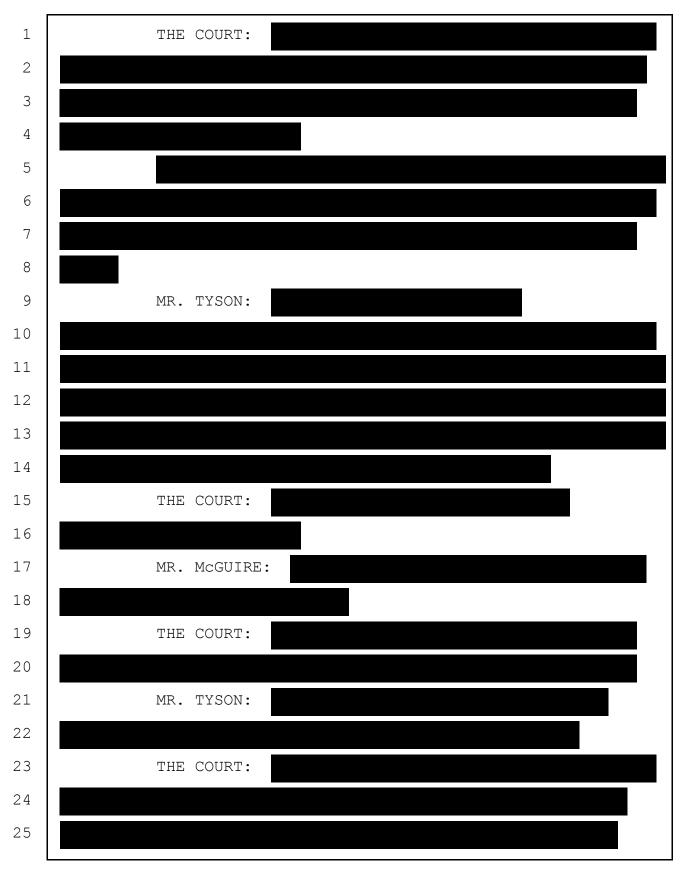


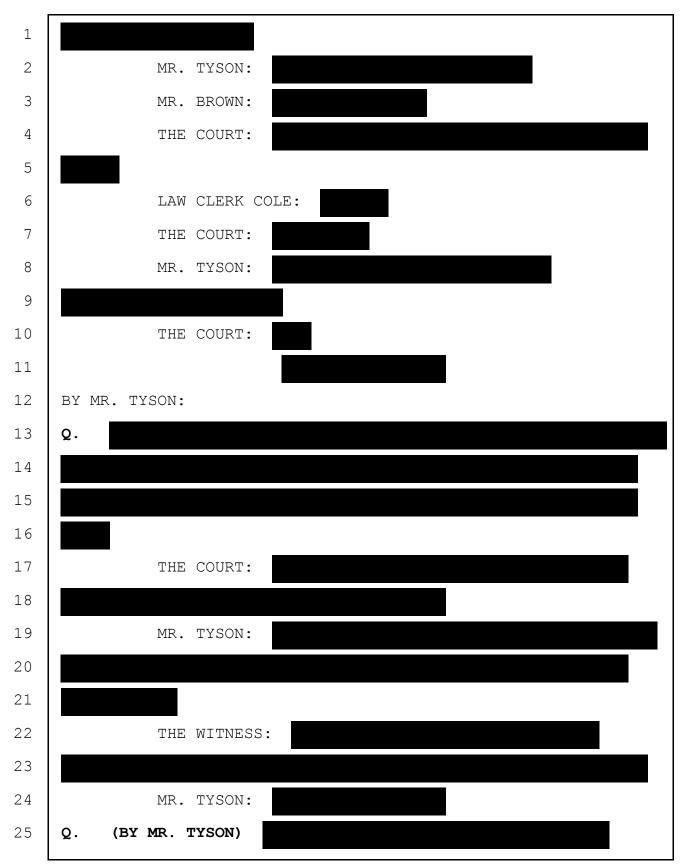


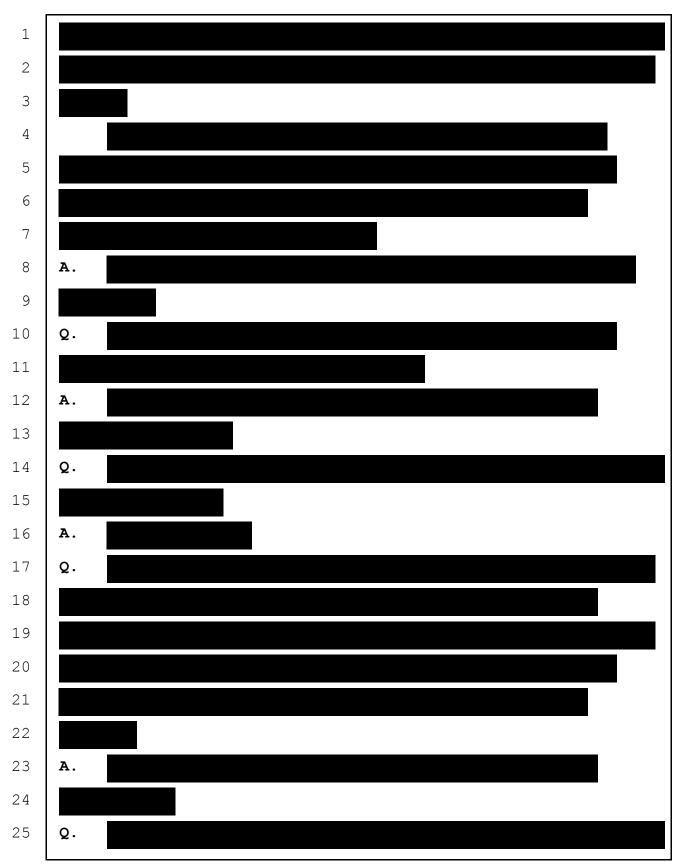


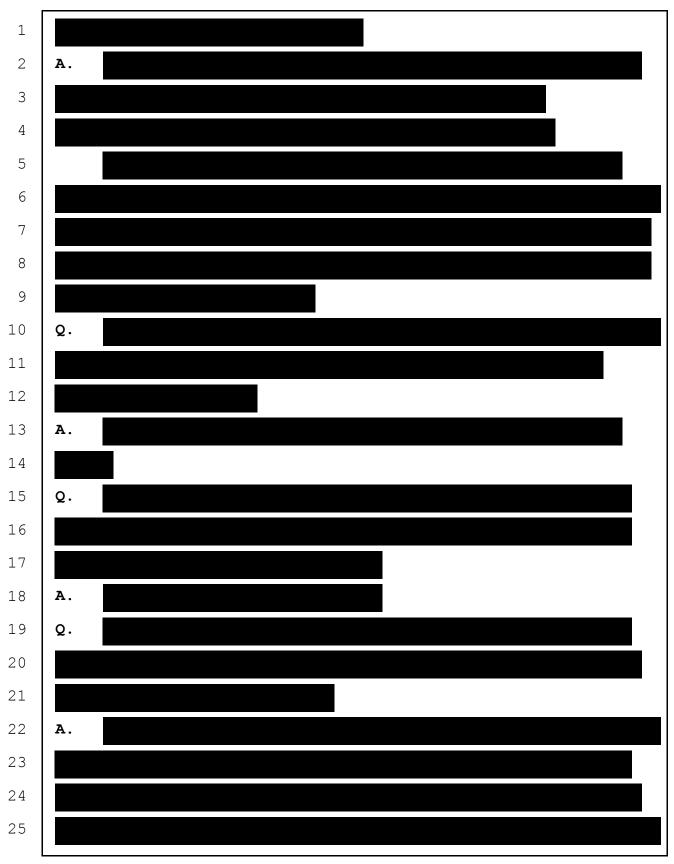
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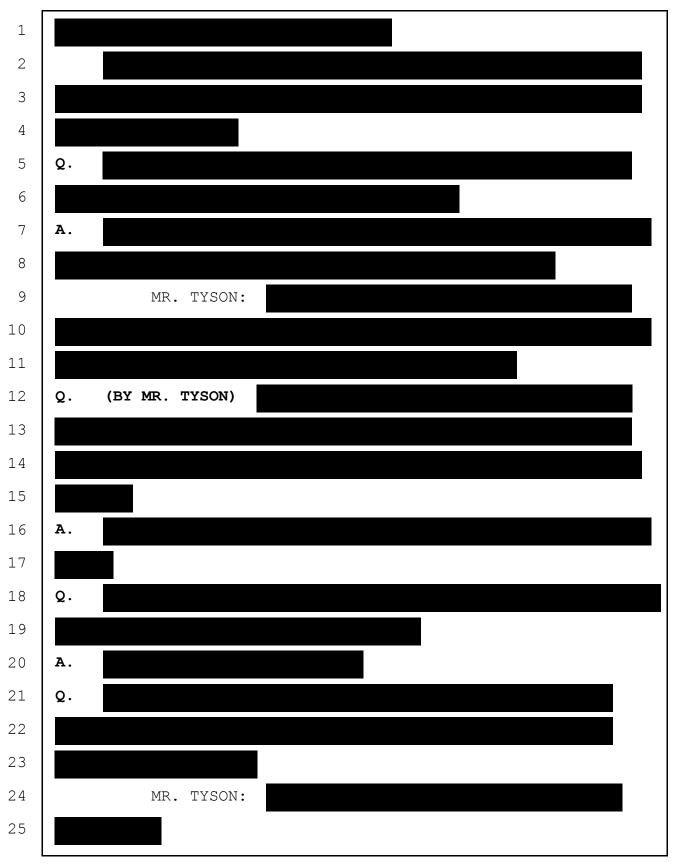


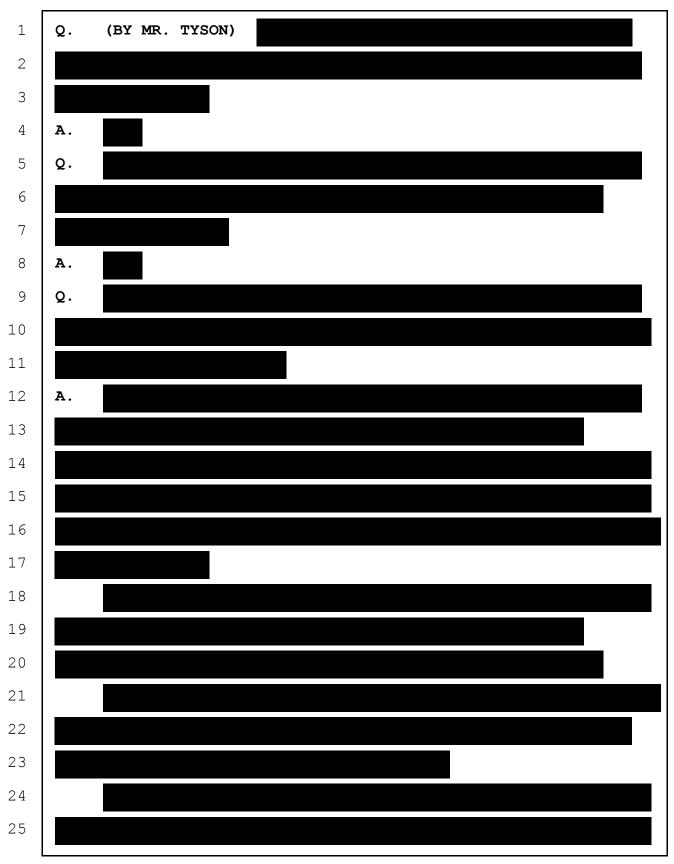


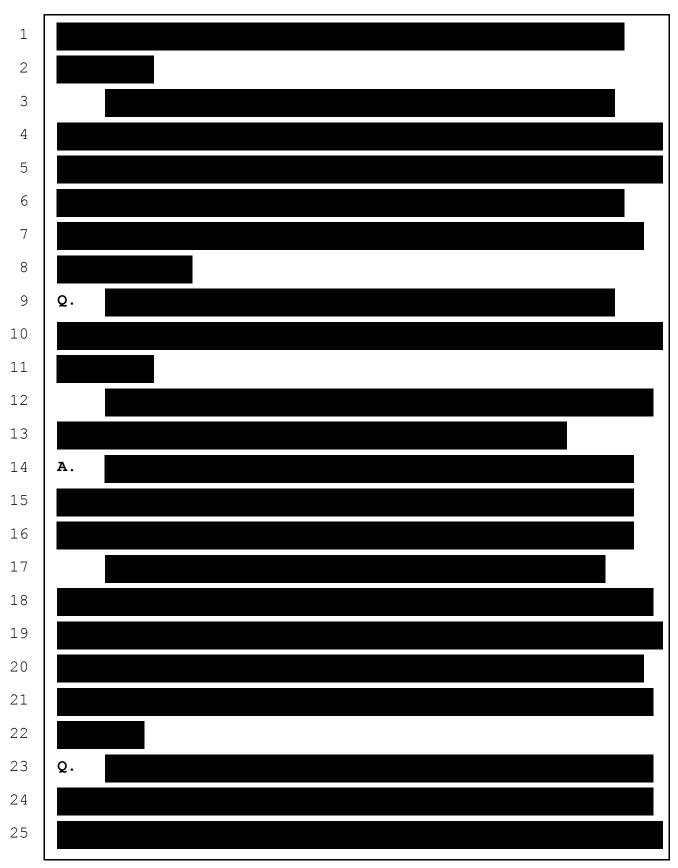


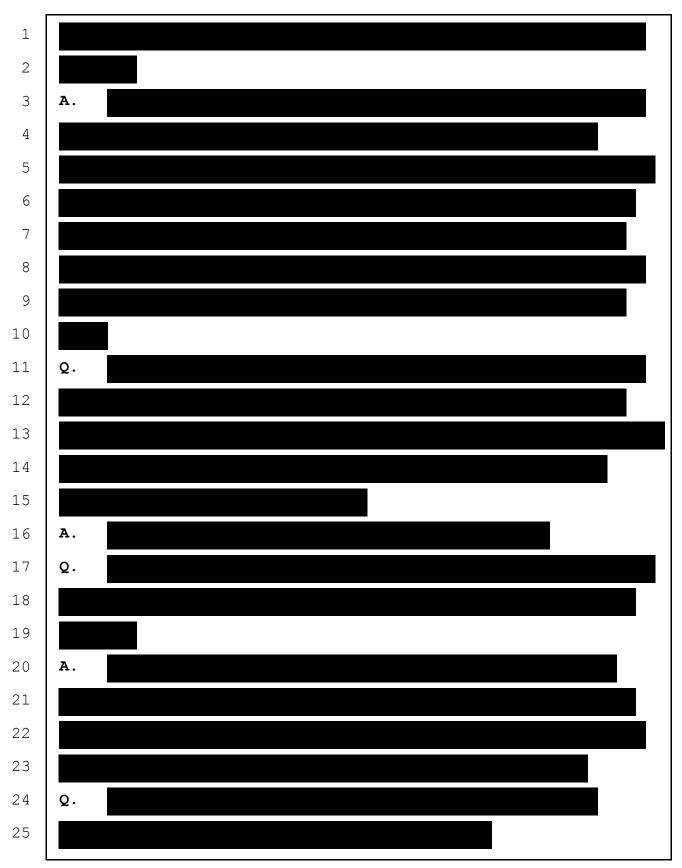


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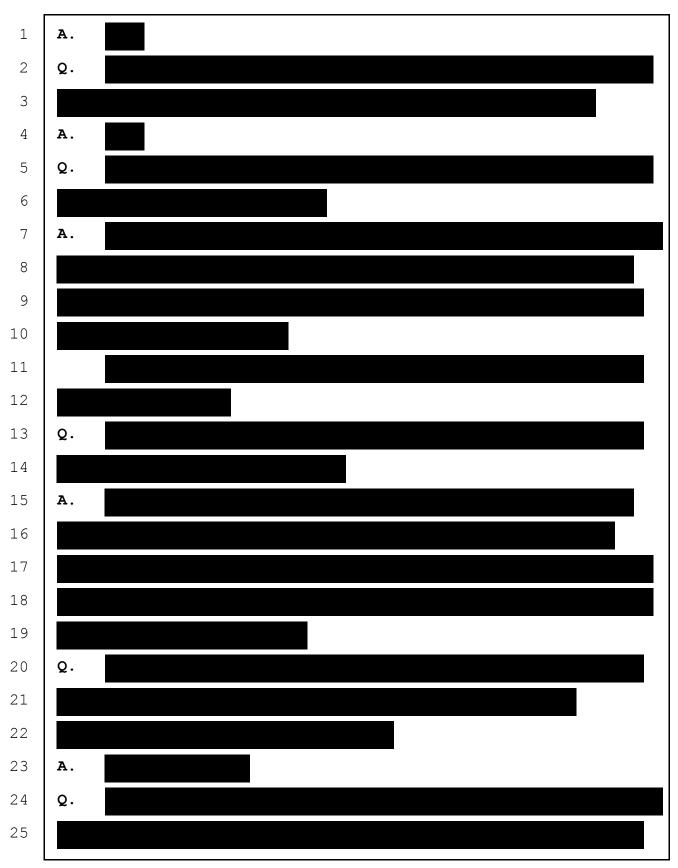




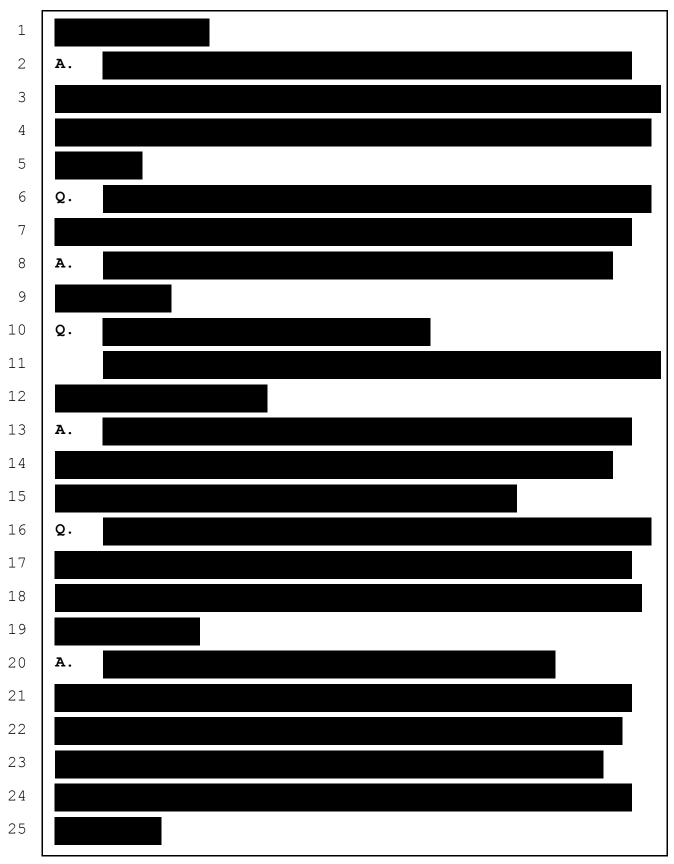




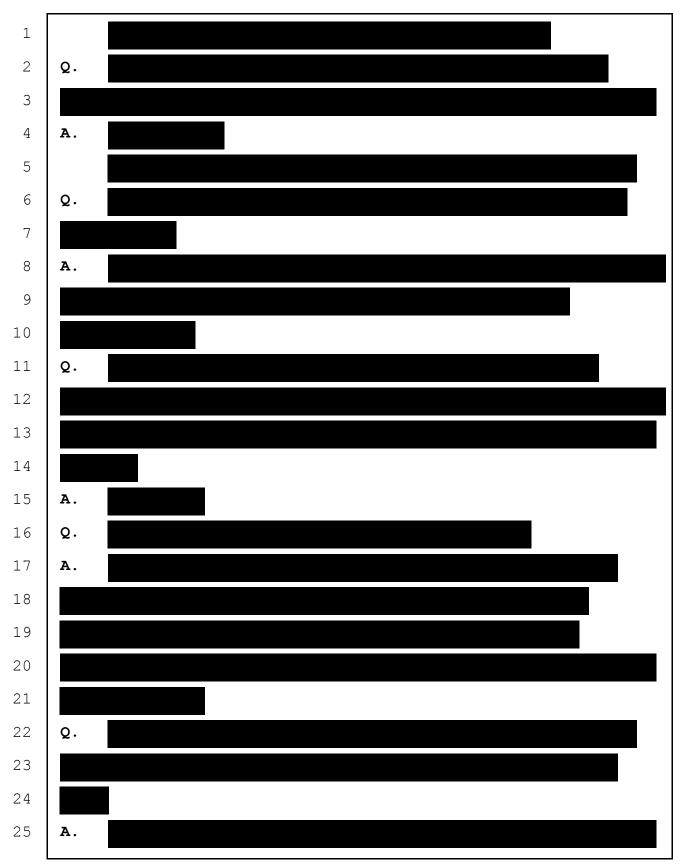
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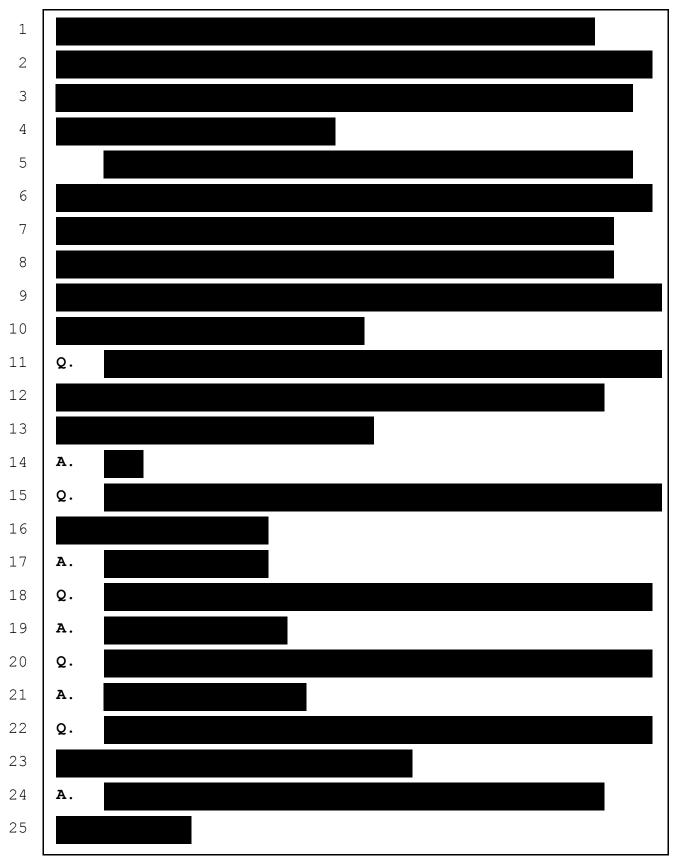


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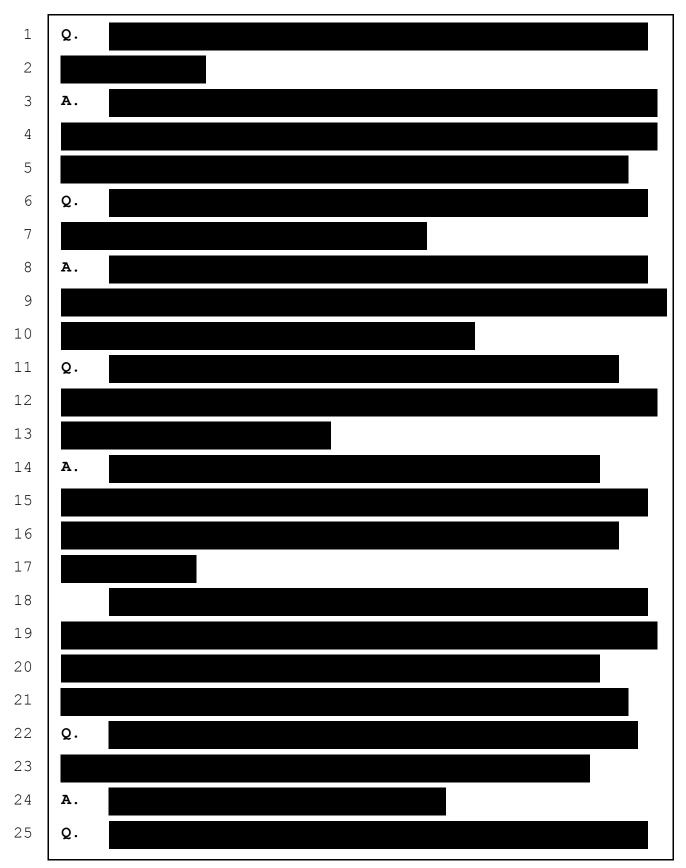


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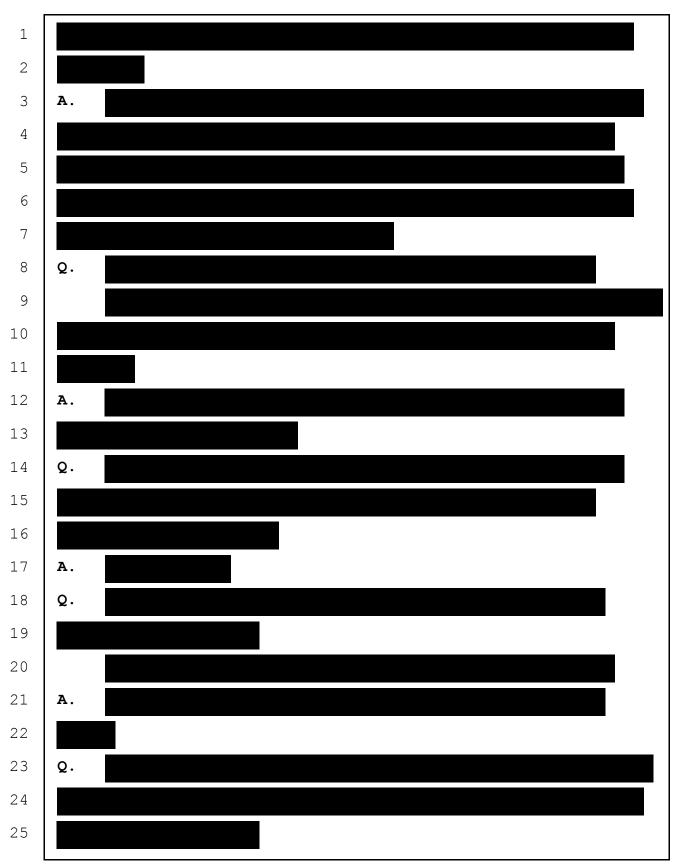




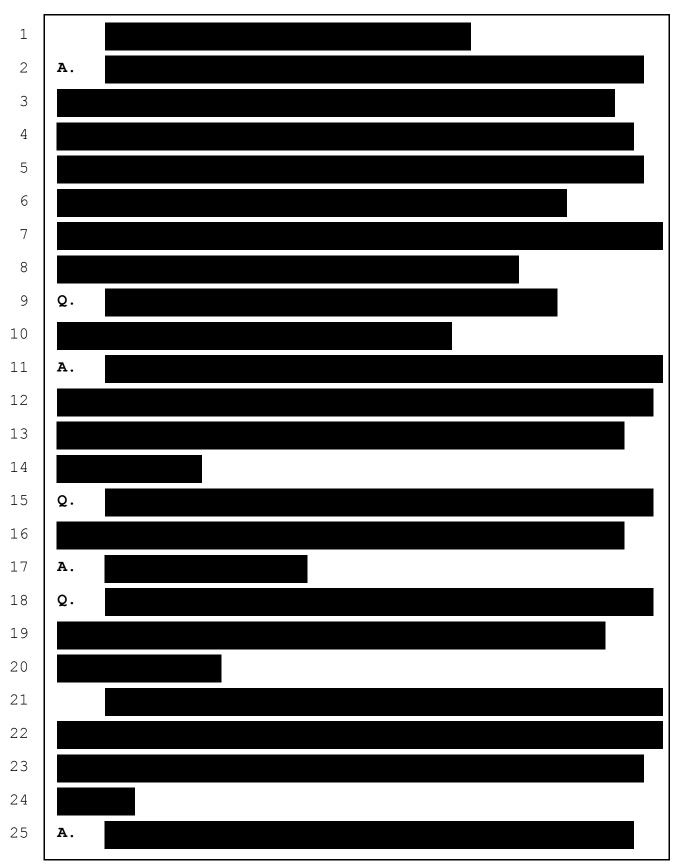
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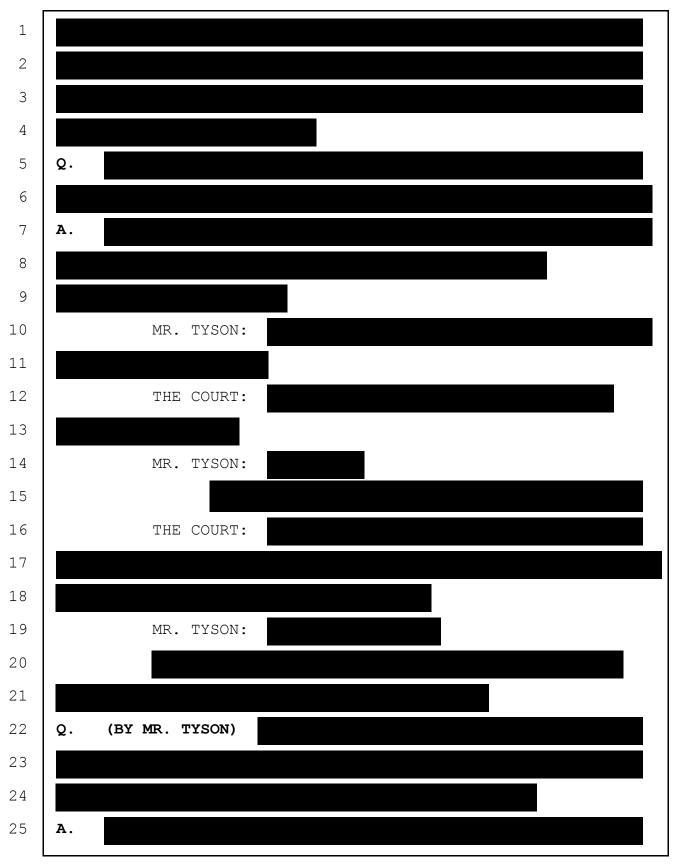
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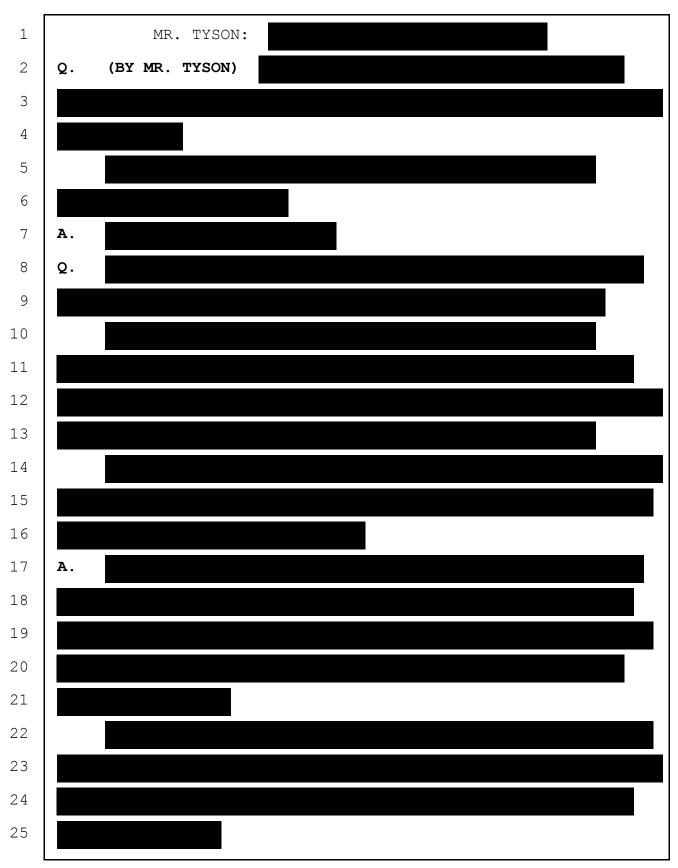


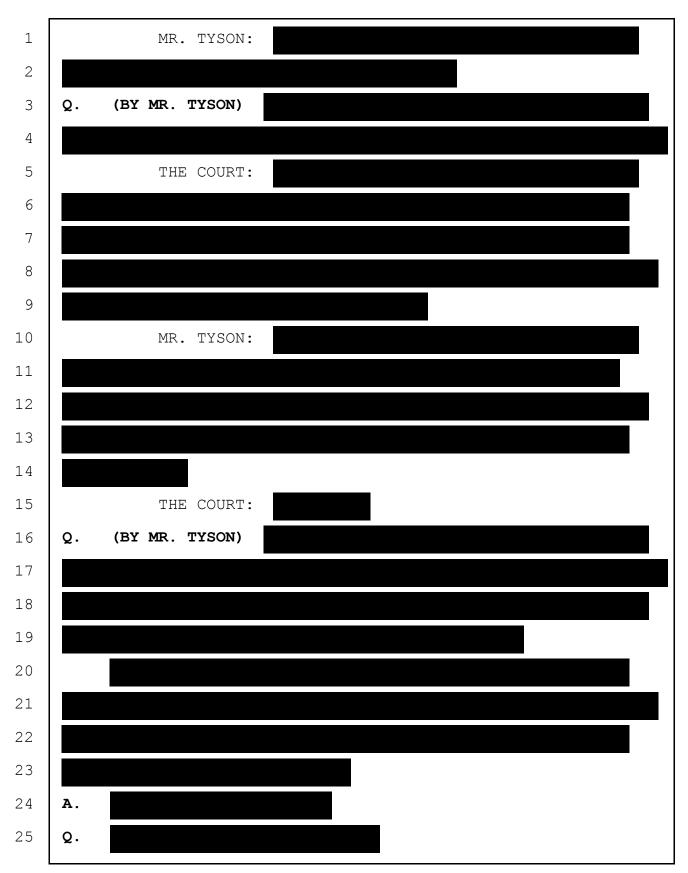
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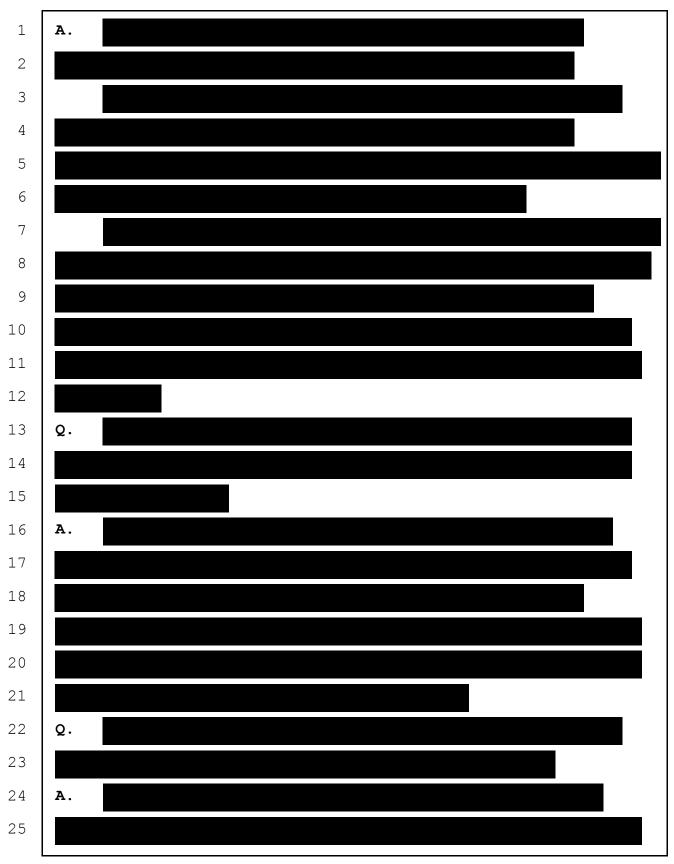


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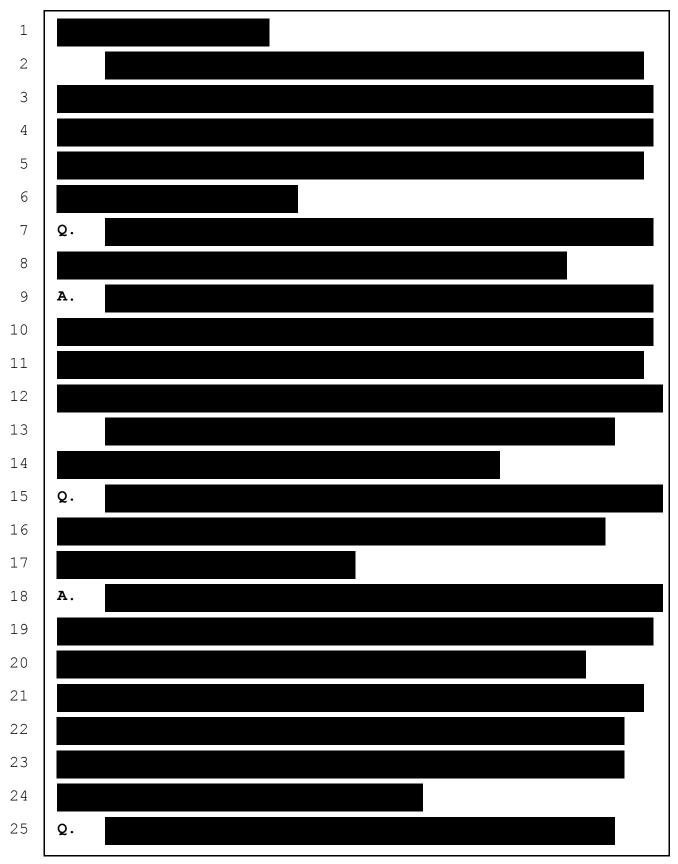




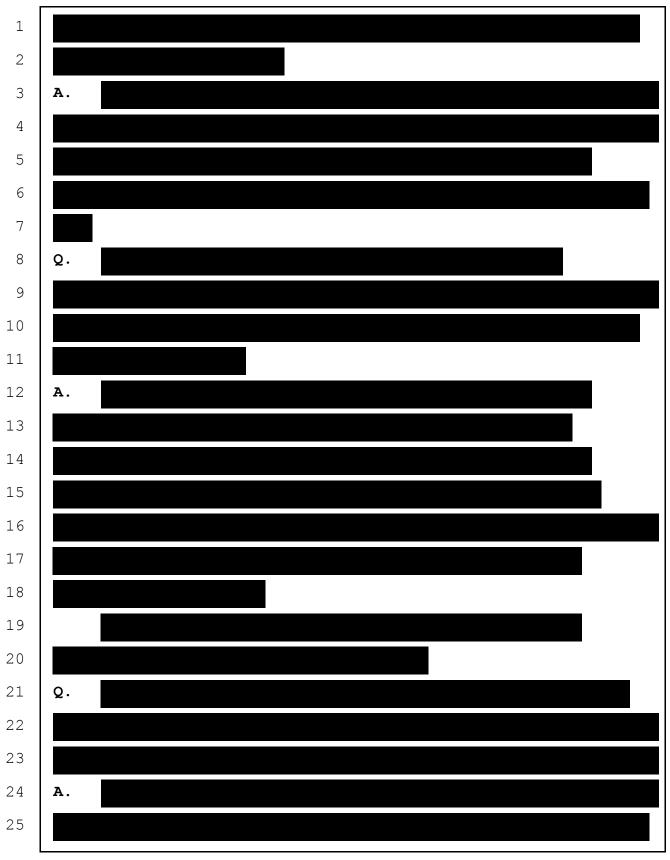


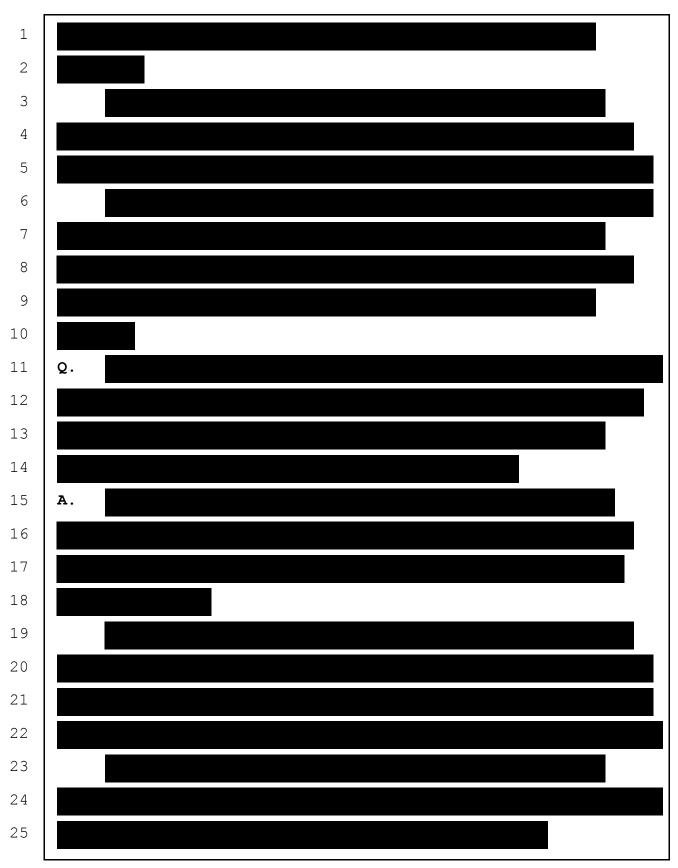


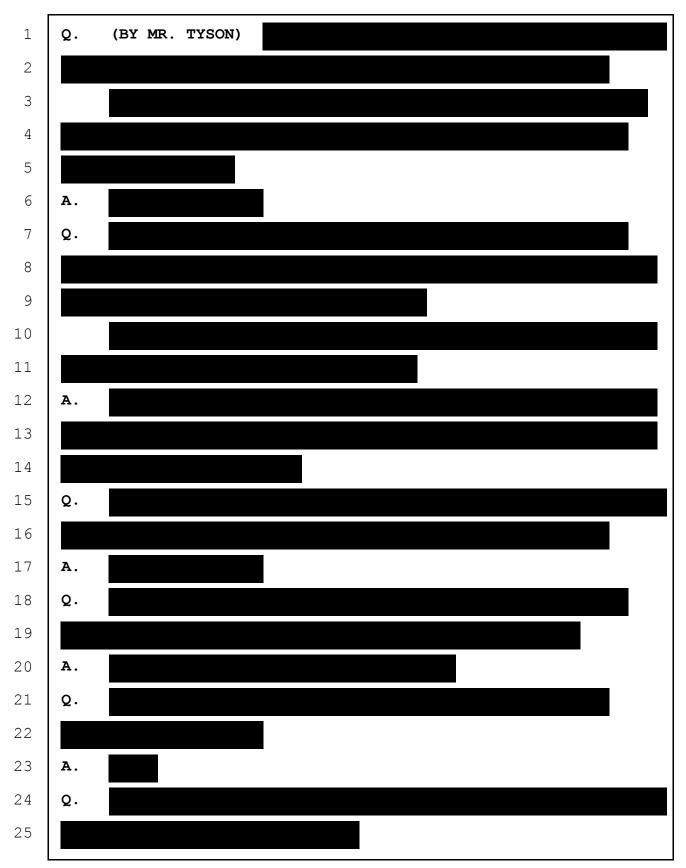
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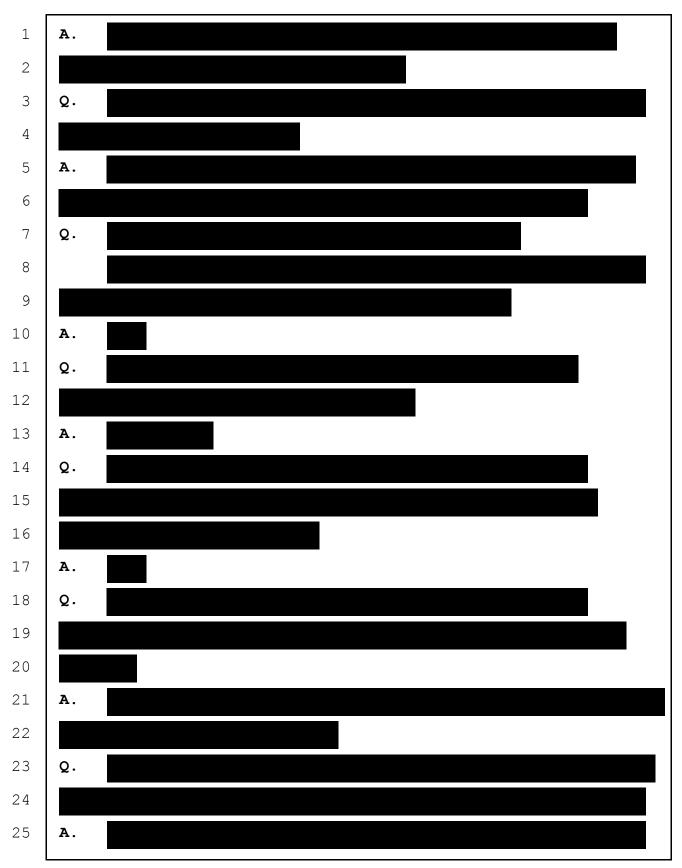
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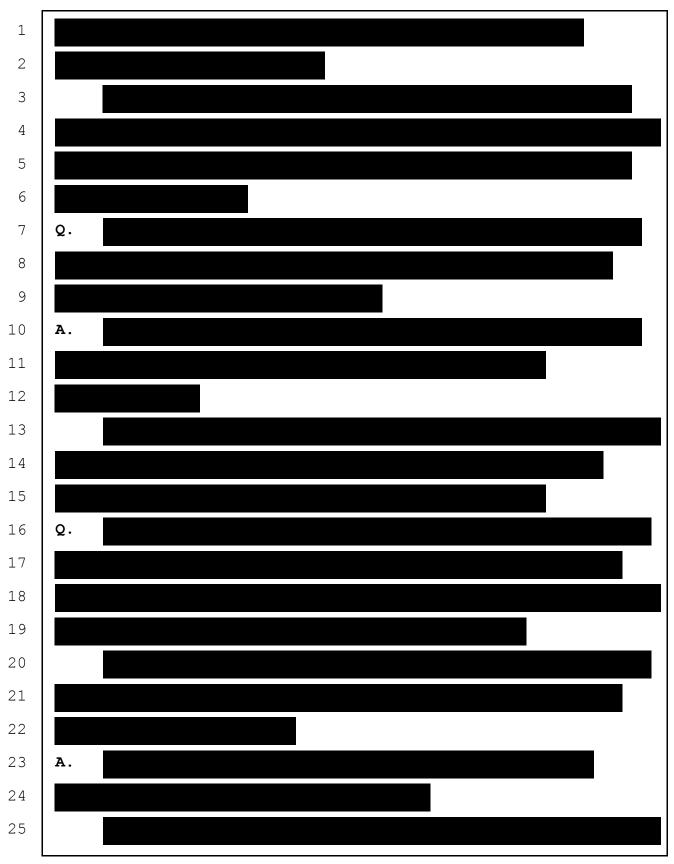


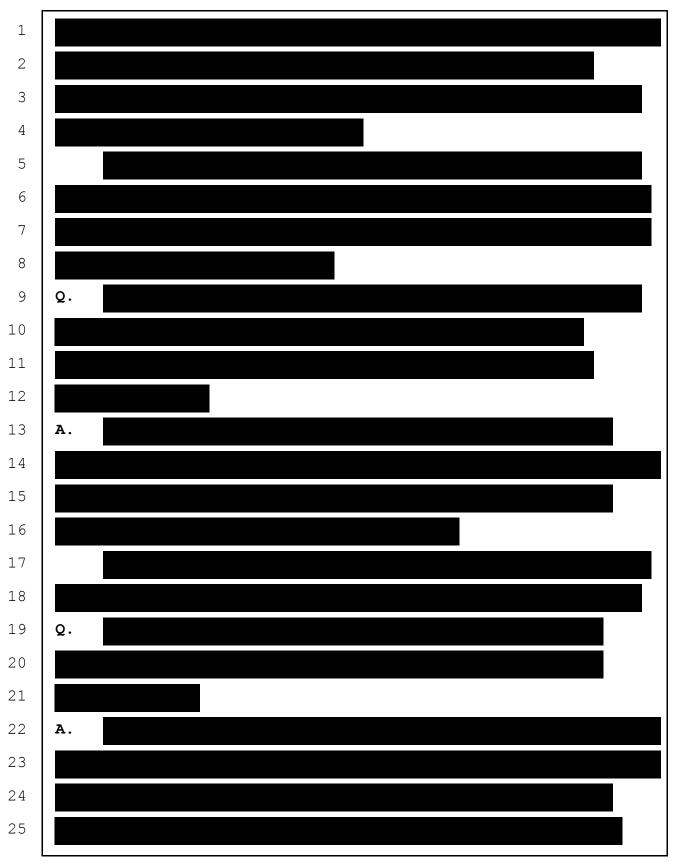


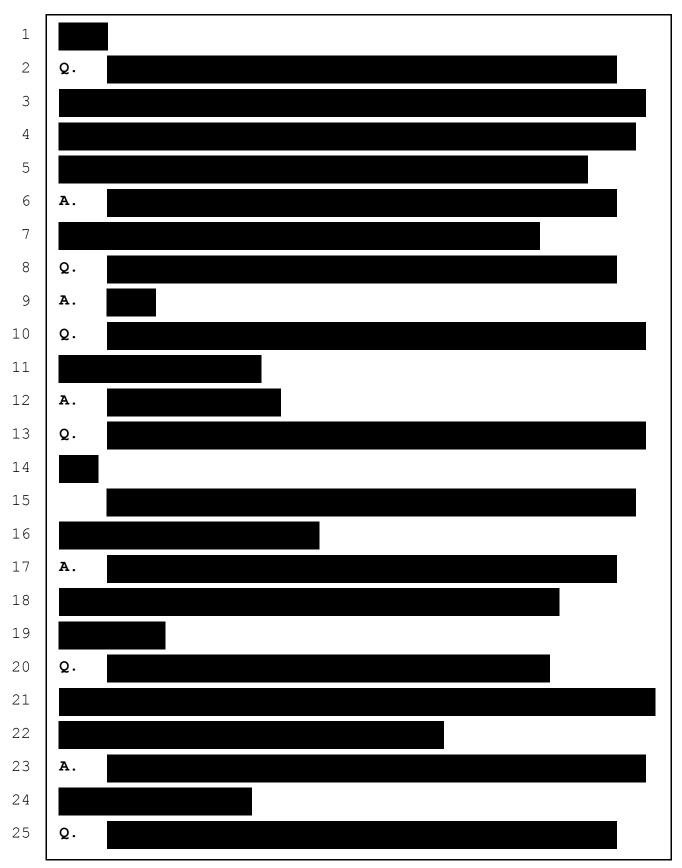


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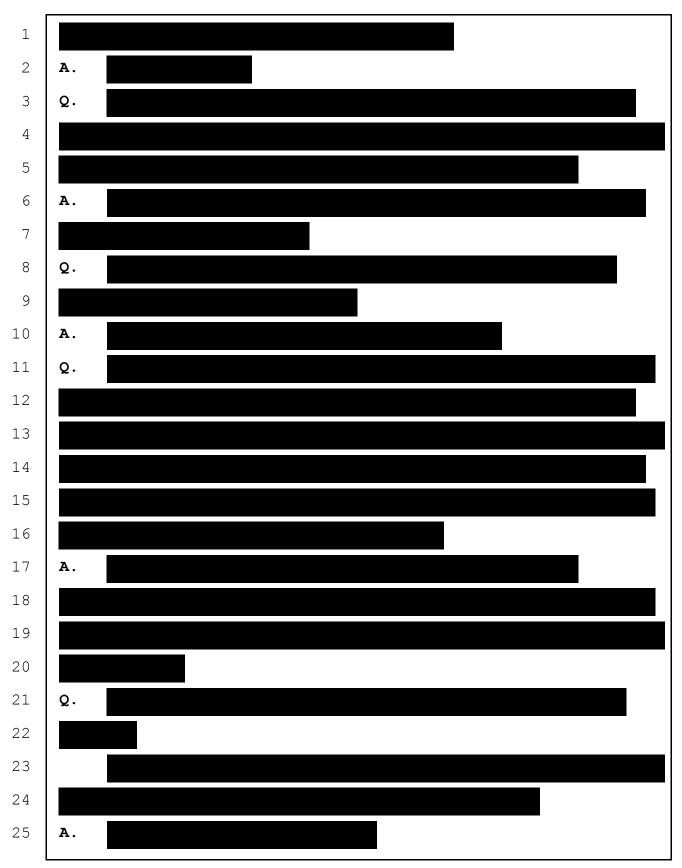


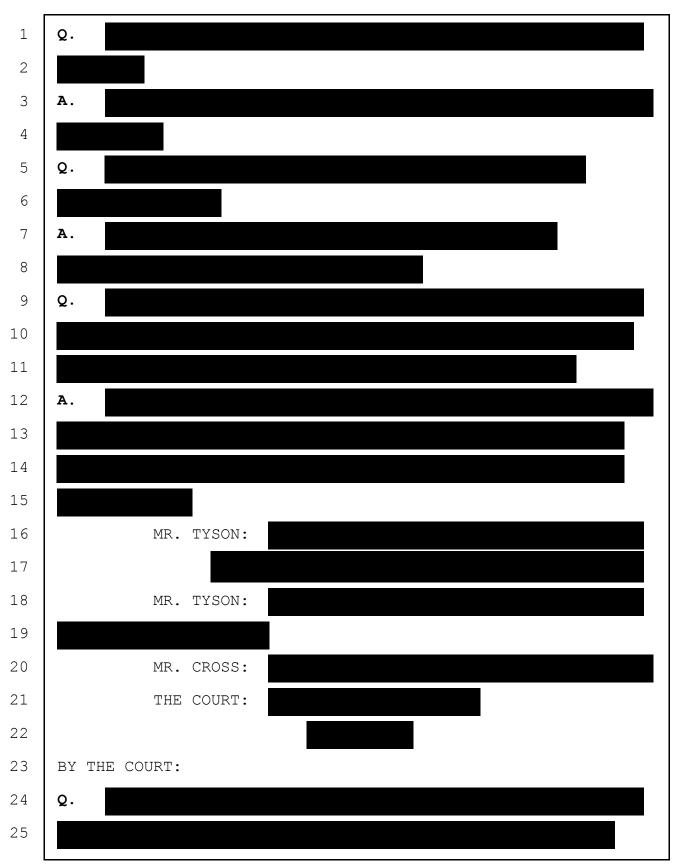


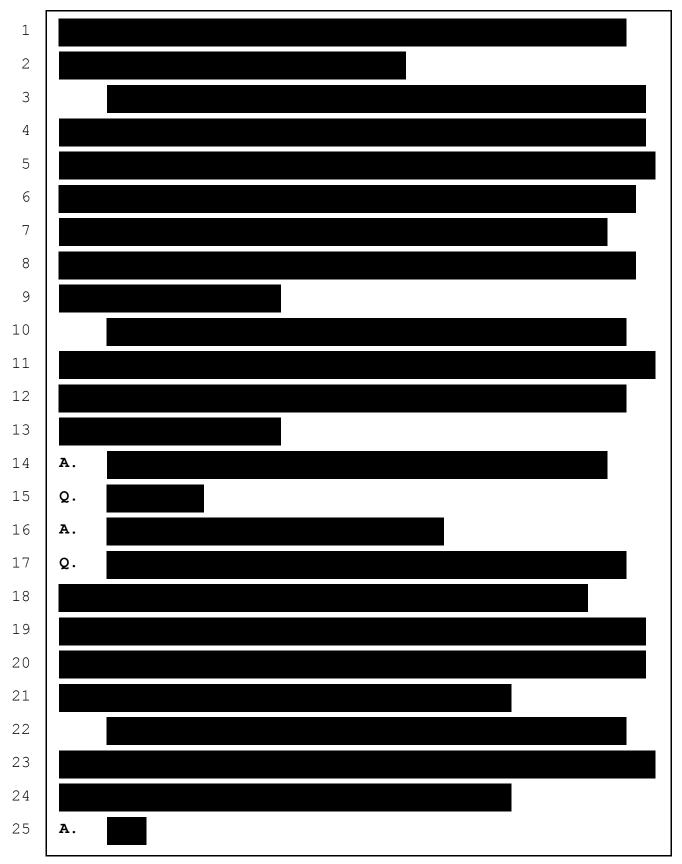


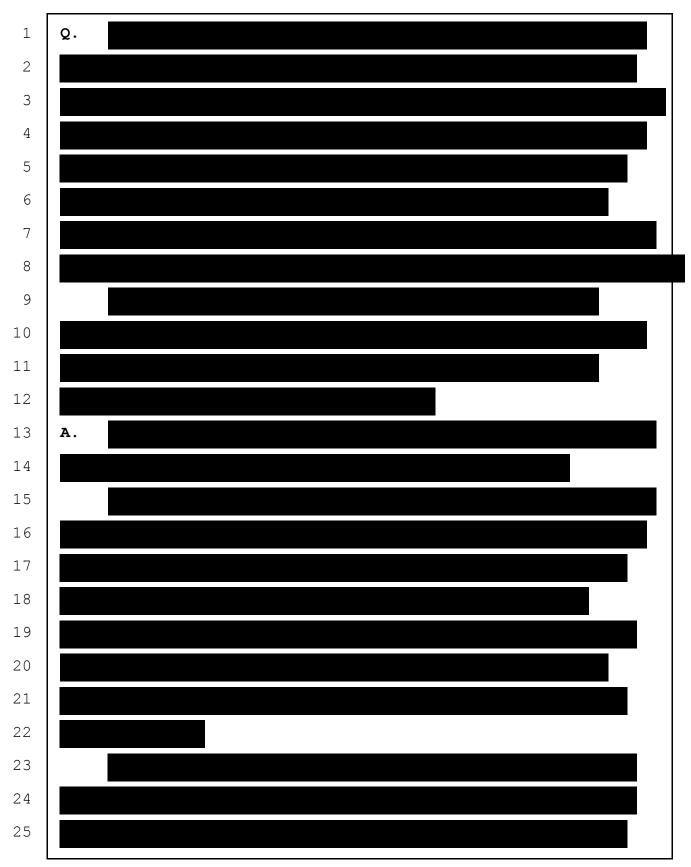


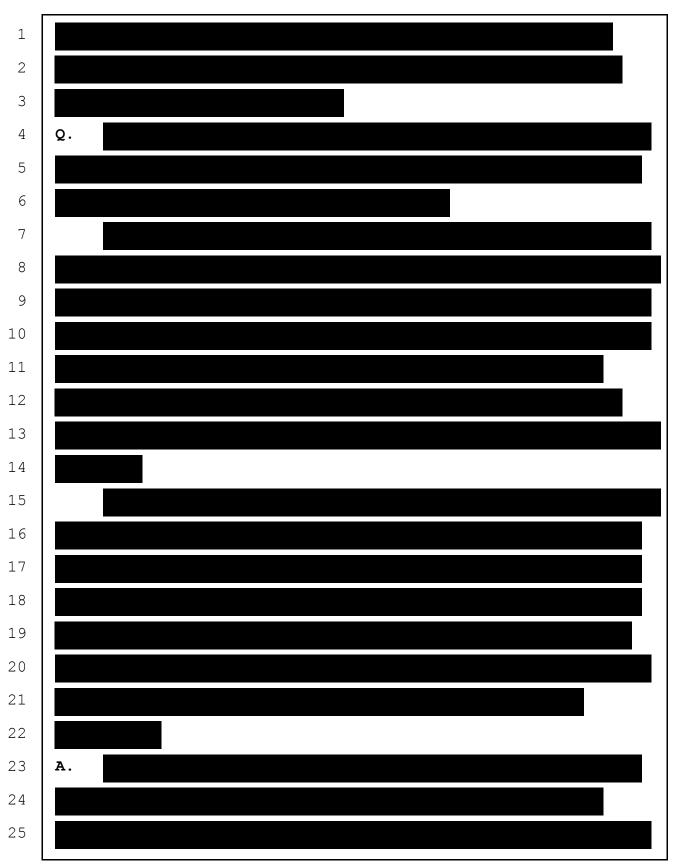
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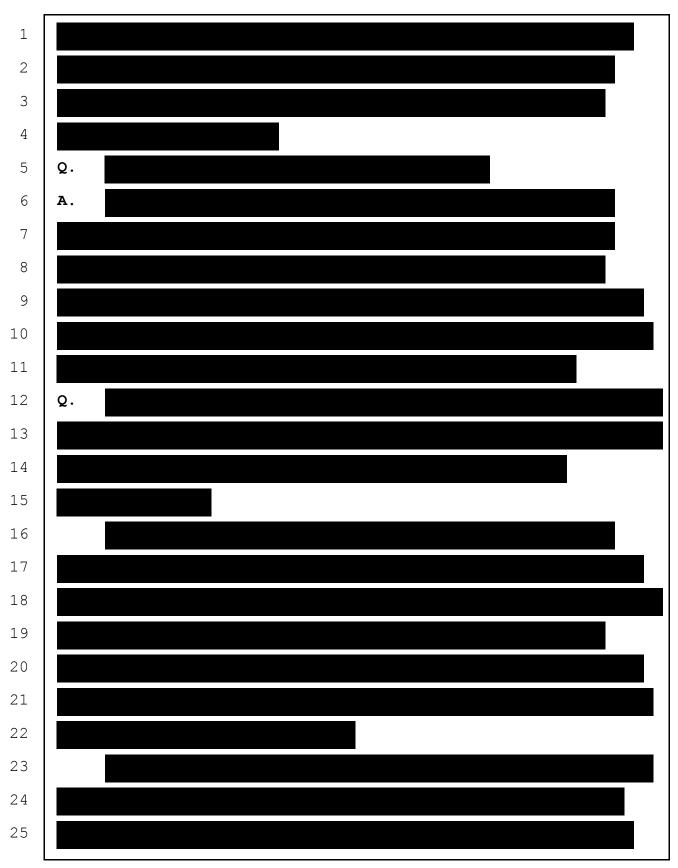




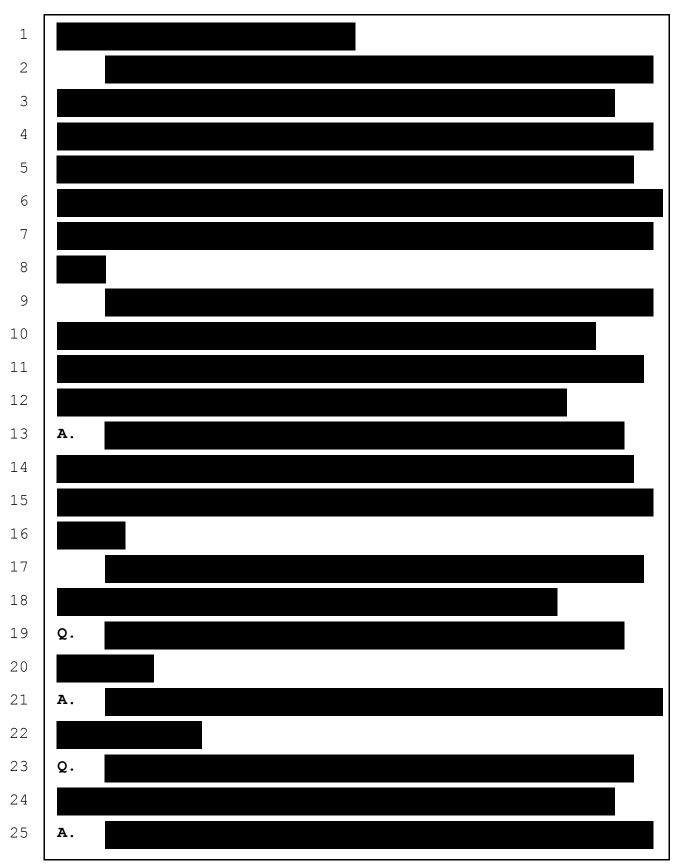


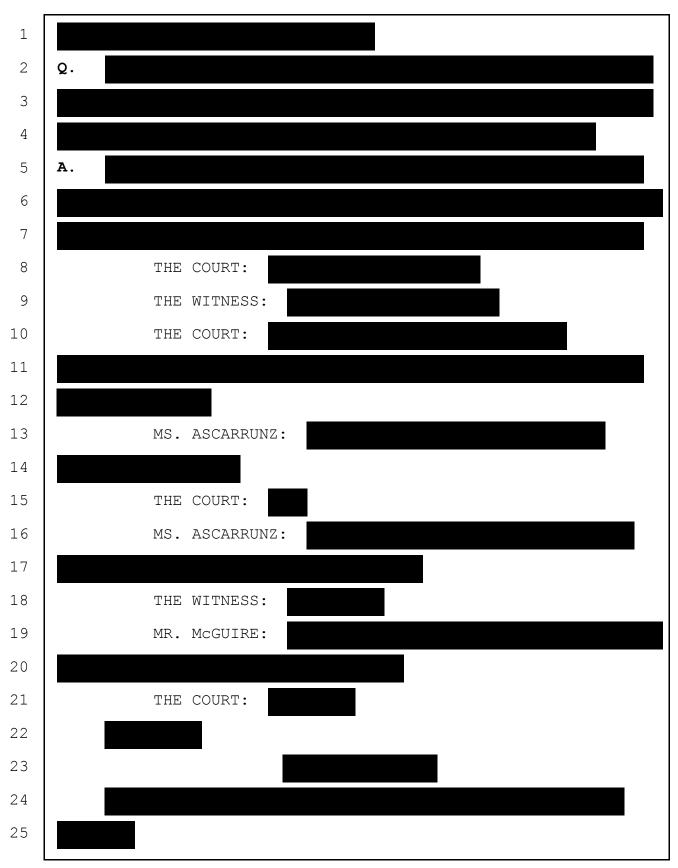


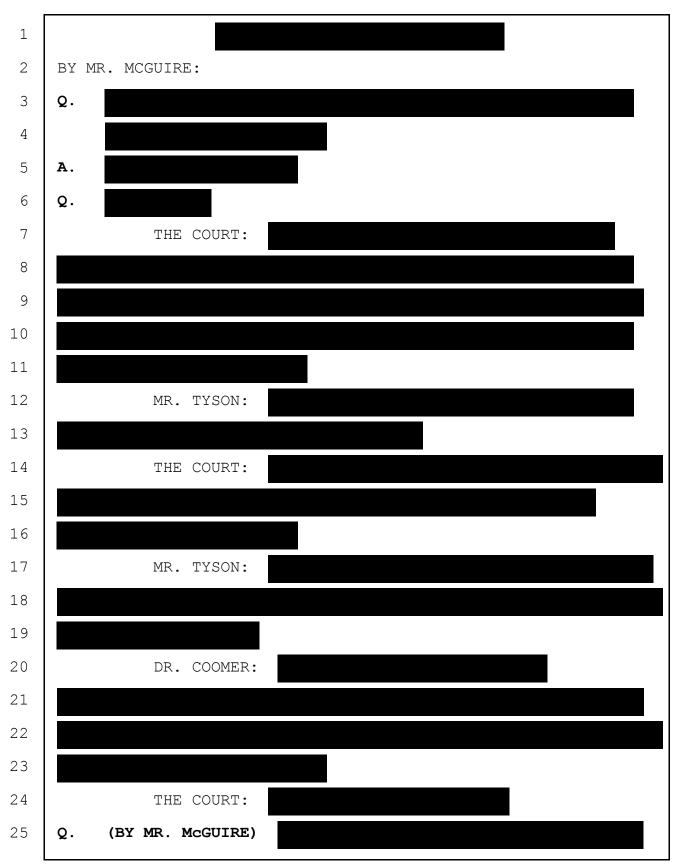


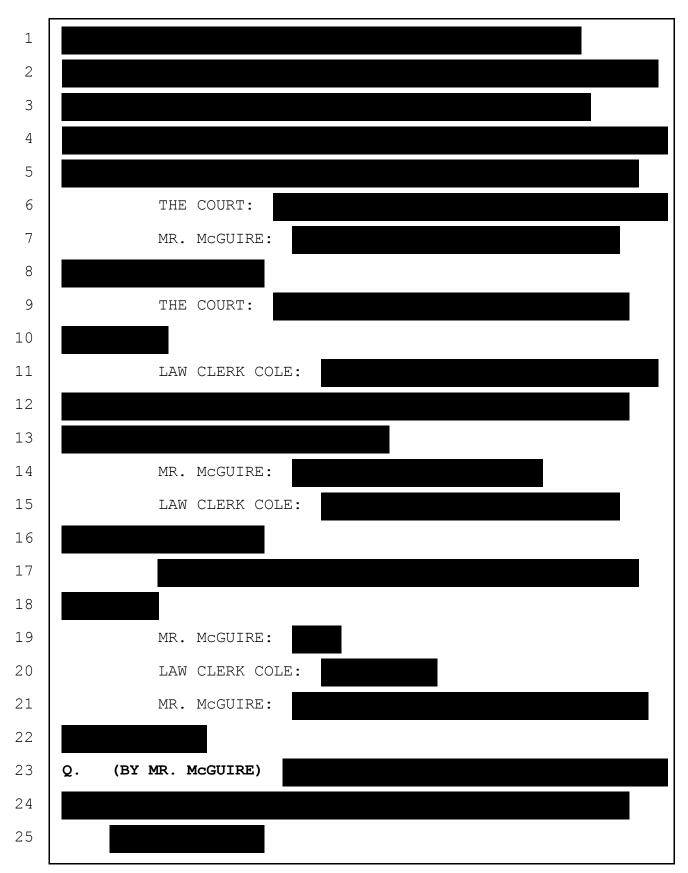


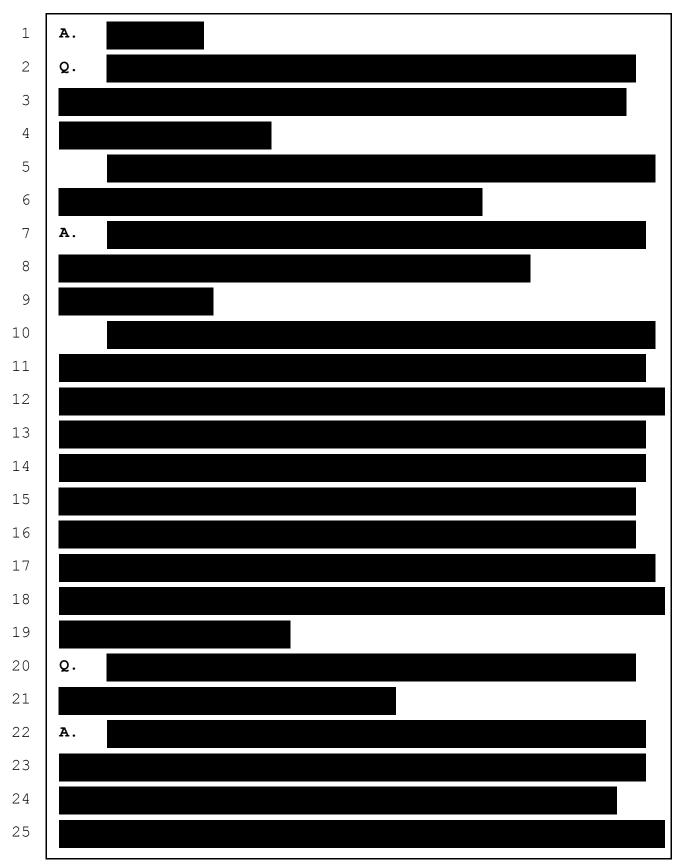
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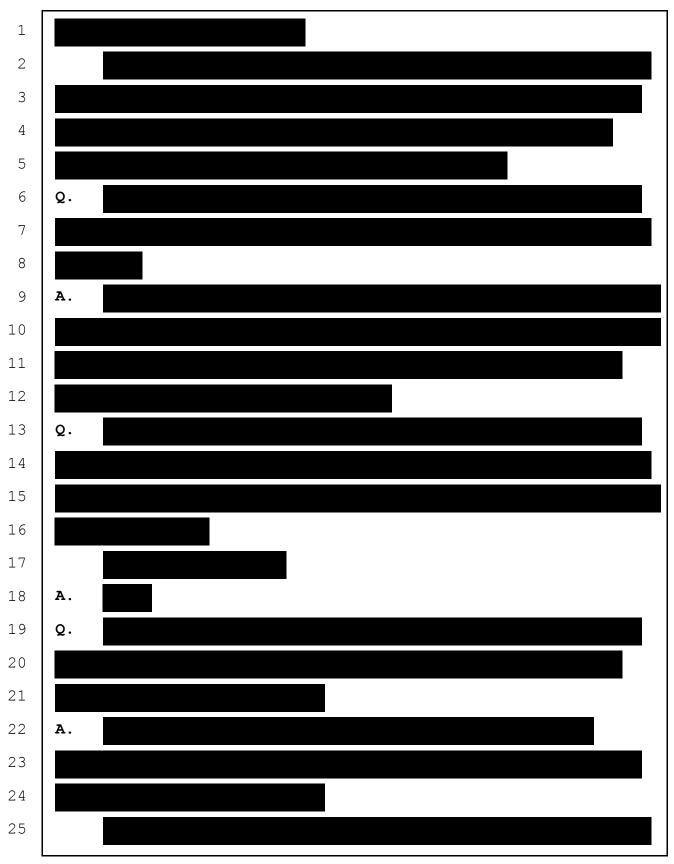




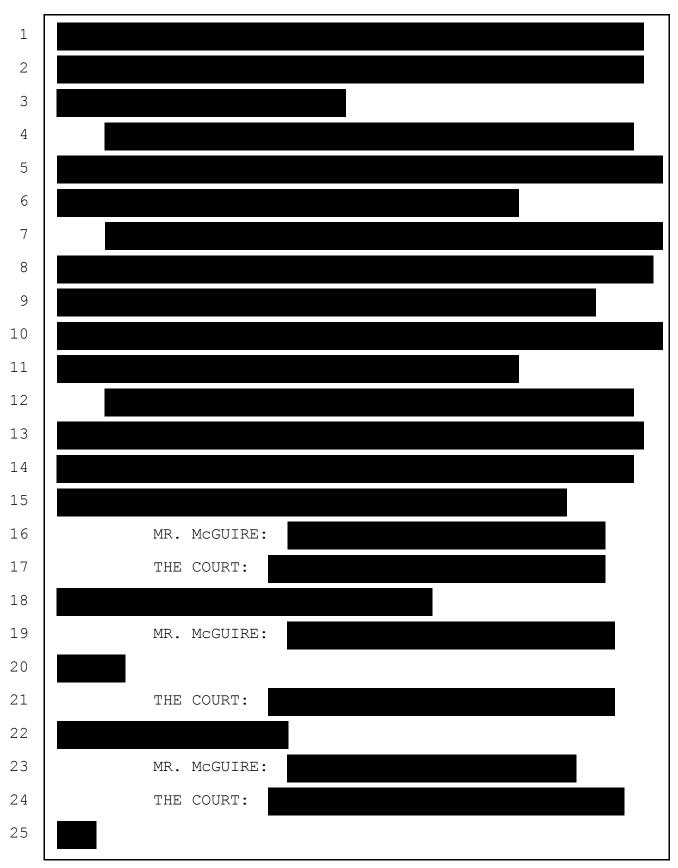


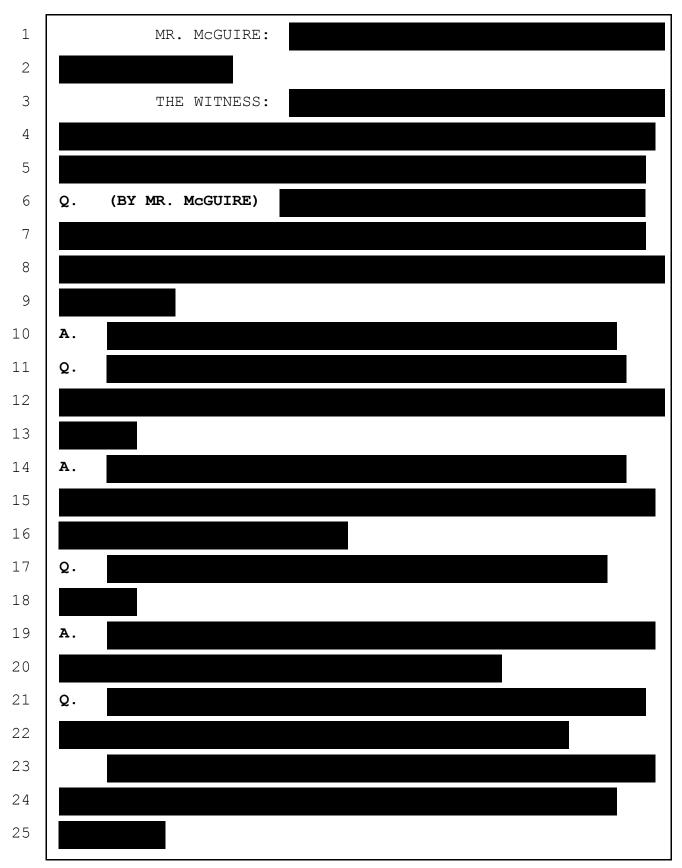


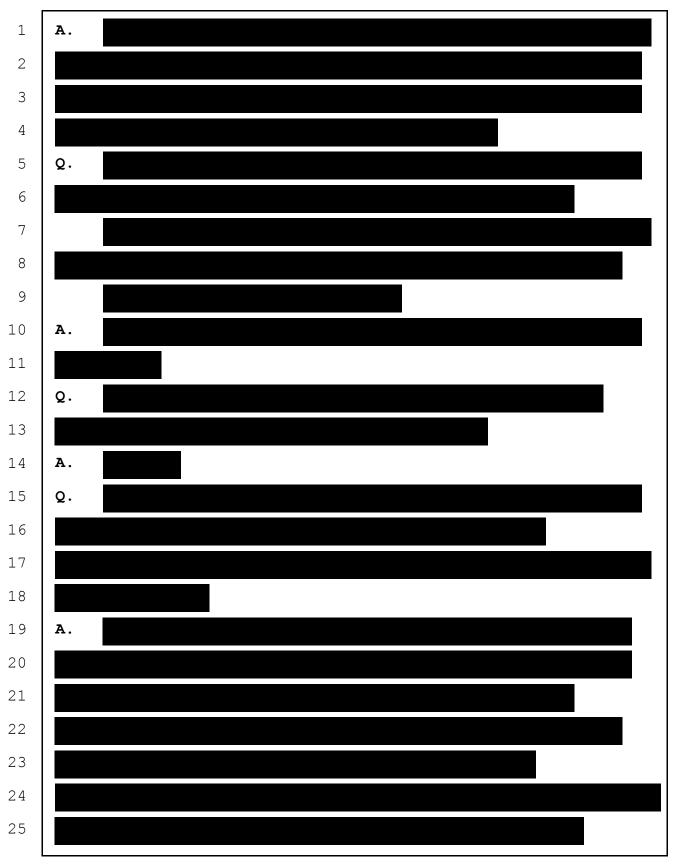




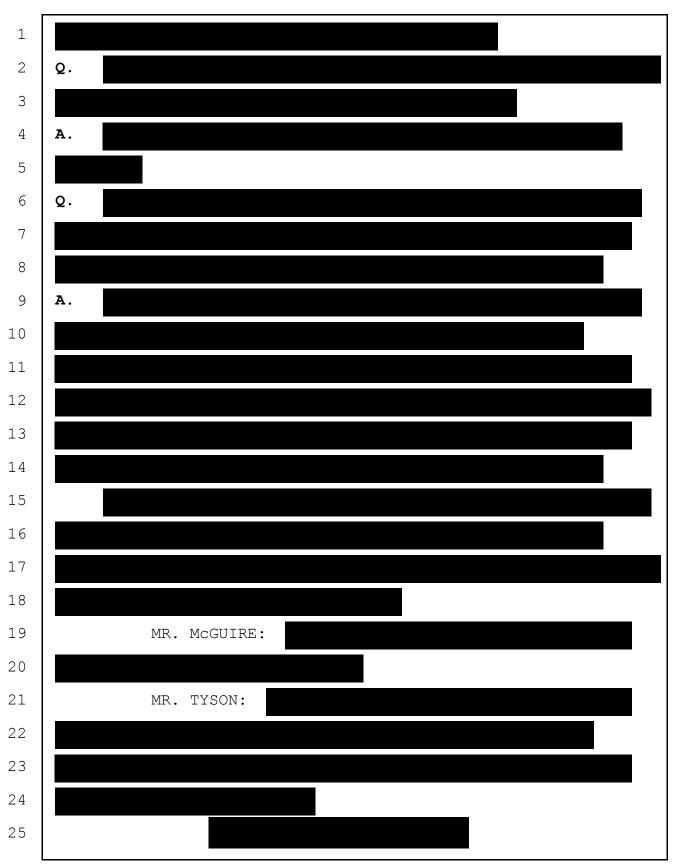
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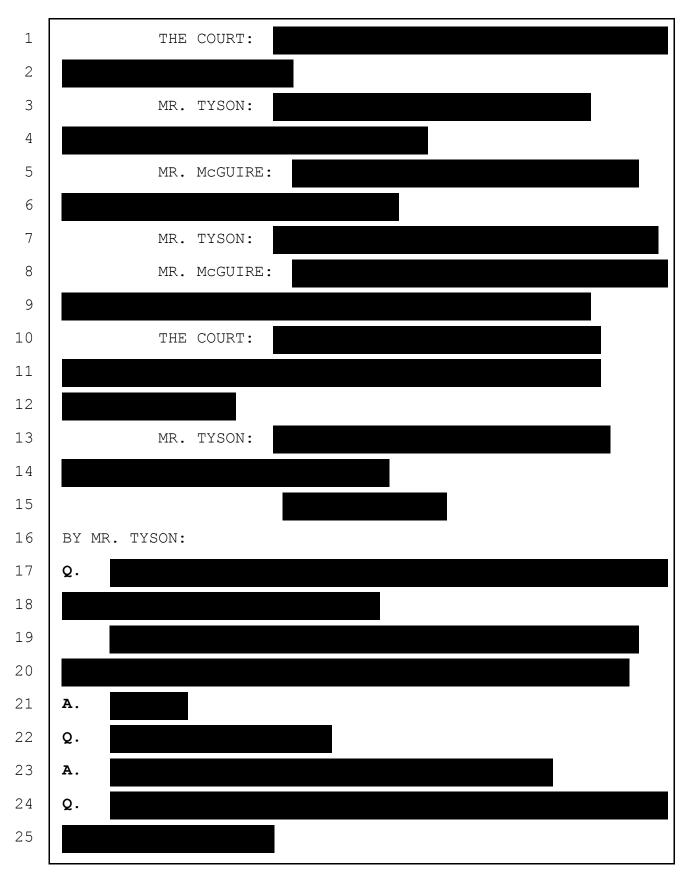


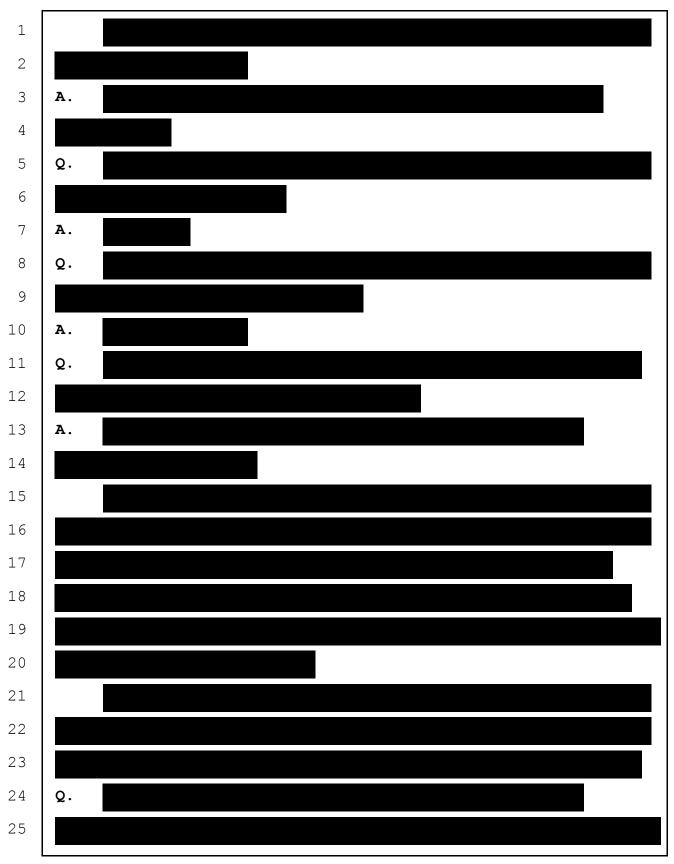


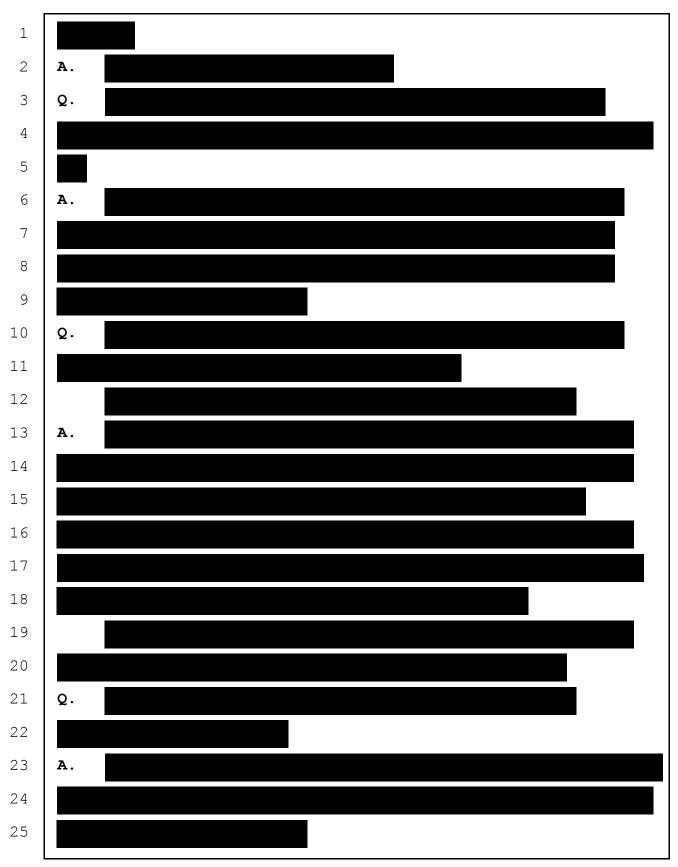


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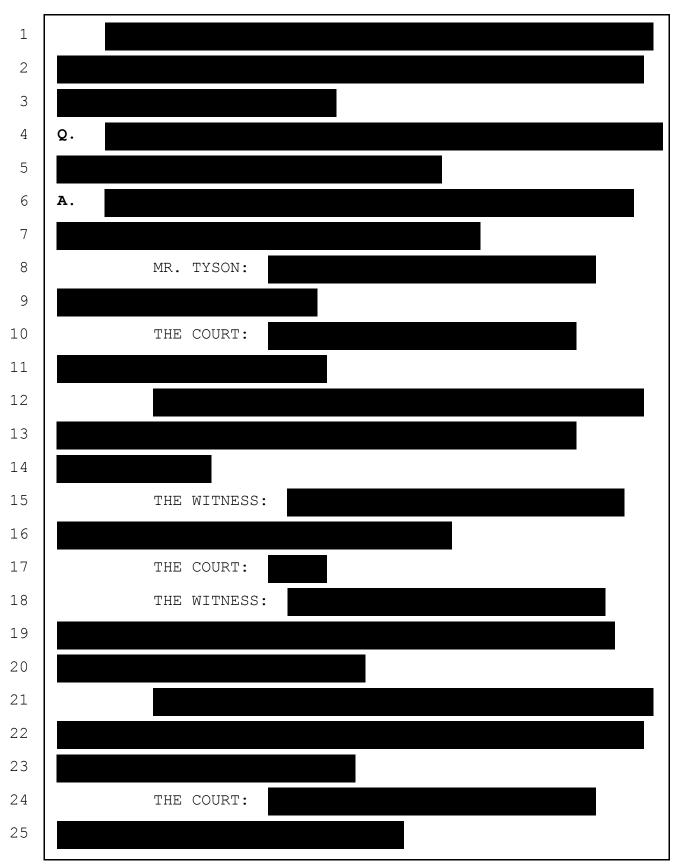


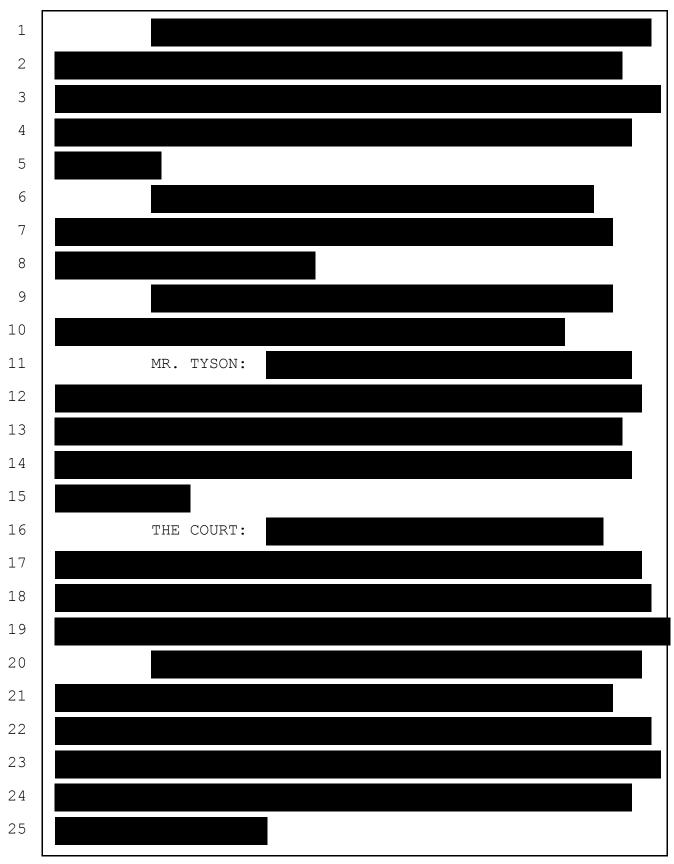


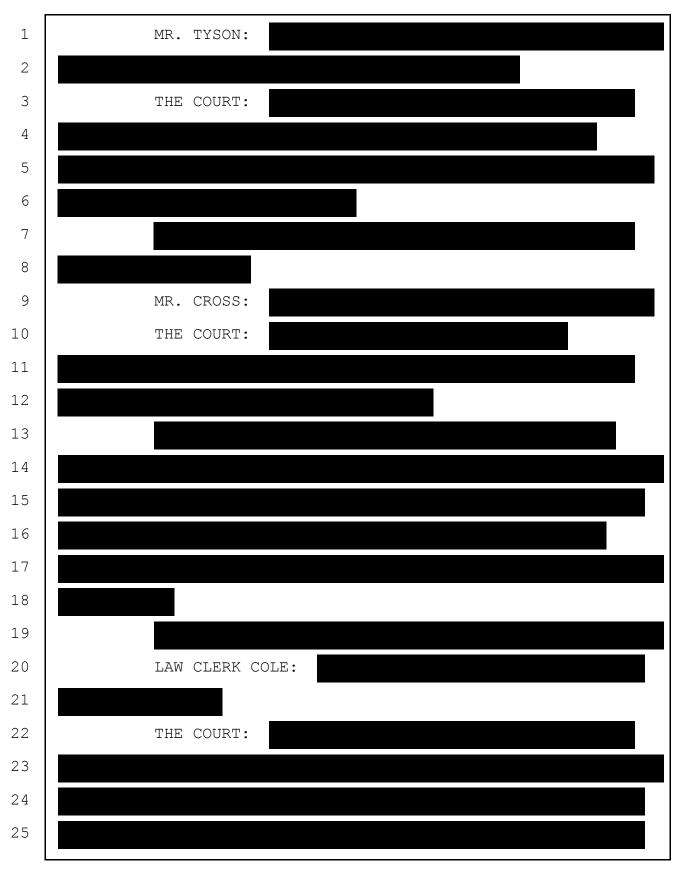


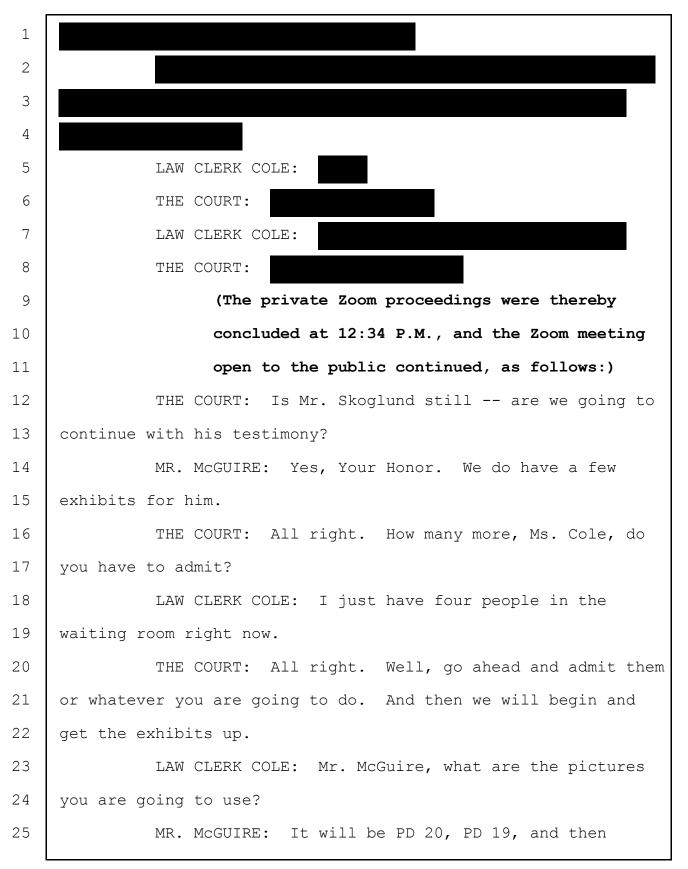


UNTED STATES DISTRICT COURT OFFICIAL CERTIFIED TRANSCRIPT









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1
    potentially -- well, that will be it for Mr. Skoglund.
 2
               THE COURT: Who is Diabolic Empress? Okay. Thank
     you. I don't want to have another experience here.
 3
 4
               I think we have everyone here -- counsel and the
 5
    witness.
               And is Mr. Skoglund going to continue his testimony
 6
 7
    now that is the public portion of his testimony?
 8
               MR. McGUIRE: Yes, Your Honor.
 9
               Mr. Bruce Brown had a motion I believe he wanted to
10
    make. I think he is muted.
               THE COURT: Mr. Brown -- let's see. Ms. Cole, did
11
12
    you de-mute?
13
               MR. BROWN: Thank you, Your Honor. Thank you,
14
    Ms. Cole.
15
               The Coalition plaintiffs at the appropriate time will
16
    be filing a motion to unseal the portion of the sealed
17
     testimony that is not confidential. We will also be taking the
18
    position that the demonstration of Dr. Halderman also should be
19
    unsealed. We completely understand the logistical imperatives
20
    that Your Honor has been grappling with. And I believe that a
21
    motion would be the best vehicle for allowing the parties,
22
     including the State, to present the arguments and to be very
23
     specific of what portions of the testimony should be unsealed
     and for Your Honor to consider those in due course.
24
25
               Thank you.
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1
               THE COURT: That is fine. Thank you.
 2
               MR. McGUIRE: Mr. Skoglund, I believe you are muted,
    and I don't see your video.
 3
 4
               LAW CLERK COLE: It is taking a moment for --
 5
              COURT REPORTER: I believe we have some members of
 6
    the public with video up. If counsel of record could just have
 7
    video up.
 8
               THE COURT: I think we're okay. We have pictures
 9
    but --
10
              All right. Great. We have our witness back. Hello,
11
    Mr. Skoglund.
12
               MR. McGUIRE: May I proceed?
13
              THE COURT: Yes.
14
                     DIRECT EXAMINATION (Continued)
    BY MR. MCGUIRE:
15
16
        Mr. Skoglund, I would like to ask you about logic and
17
    accuracy.
18
              MR. McGUIRE: And so I would like to ask Holly --
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               THE COURT: Would you just -- for purposes of the
20
    public, let's just go ahead and just have the witness identify
21
    again.
22
              You are still under oath, Mr. Skoglund. Would you
23
     just go ahead again and identify yourself, where you are
     located, and what your -- basically what the scope of your
24
25
    expertise and position are.
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1
               THE WITNESS: Yes. My name is Kevin Skoglund,
 2
     S-K-O-G-L-U-N-D. I reside in Wynnewood, Pennsylvania, just
     outside of Philadelphia, which is where I'm calling from today.
 3
 4
     I'm testifying as a cybersecurity and electronic voting expert
 5
     in this case.
               THE COURT: And what is the nature of your business
 6
 7
     and background, just as background?
 8
               THE WITNESS: Yes. My background is diverse.
     includes programming, teaching, cybersecurity consulting, and
 9
10
     advising on election technology.
11
               THE COURT: Thank you.
12
          (BY MR. McGUIRE) So thank you, Mr. Skoglund.
13
          You are familiar with logic and accuracy?
         Yes, I am.
14
     Α.
          What is the purpose of pre-election logic and accuracy
15
     Q.
16
     testing?
17
          The purpose of any testing is to try and answer a
     question, to try and, you know, find out if something is true
18
19
     or not.
20
          And so for logic and accuracy testing, different counties
     perform it different ways, different states perform it
21
22
     different ways depending on what question they want to answer.
23
     So it really depends on what the scope of what you want to look
24
     at.
25
          If you look at a single contest, then you verify that that
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- single contest is working correctly. If you look at a single
 piece of equipment and test that, then you verify that that
 single piece of equipment is working correctly. If you test -if you test everything that is on a ballot, then you can test
 that the ballot is working correctly.
 - Q. And do you have a view of what constitutes adequate logic and accuracy of equipment such as a ballot-marking device?

MR. TYSON: Your Honor, I'll object here that we haven't admitted Mr. Skoglund as an expert on election administration to have an opinion on what is adequate. I think Mr. McGuire can lay the foundation for that. I don't think it has been laid so far.

MR. McGUIRE: Your Honor, we have already tendered him as an expert in voting -- electronic voting security. And logic and accuracy testing is an inherent part of voting security.

We can certainly lay more foundation if the State wants, but I think he is already qualified.

THE COURT: All right. Why don't you just briefly do so. I think he is. But go ahead basically to do so.

Q. (BY MR. McGUIRE) So, Mr. Skoglund, let's go back. I think some of the ground that we covered yesterday might be informative here.

Can you tell the Court more about your experience in regard to voting technology?

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1
          So I have advised a number of different groups about their
 2
     voting technology and the selections that they are making,
     including states and counties, the City of New York. And I
 3
    have made -- I have done studies, analysis of the voting
 4
 5
    purchases that different counties make and comparing the
     features of those systems.
 6
 7
          I'm not sure if there is something more specific you want
 8
    me to go into. It is a long list.
 9
               THE COURT: And is logic and accuracy a capacity of
10
    the systems and how it functions in the logic and accuracy part
11
    of that?
12
               THE WITNESS: Logic and accuracy -- I think the State
13
     is right. It is a point where election administration
     interfaces with election technology. But there definitely are
14
     things that I can speak to about the election technology side
15
16
     of that, you know, what is required to make sure that the
17
     technology is functioning correctly.
18
               THE COURT: Okay.
19
               MR. McGUIRE: Your Honor, do I need to go further or
20
     can I ask --
21
               THE COURT: No. If there is something you want to
22
    wrap up, that is fine but --
23
               MR. McGUIRE: Yeah.
24
          (BY MR. McGUIRE) So I just wanted to talk to you,
25
    Mr. Skoglund, about -- I would like to put up Exhibit PD 20.
```

Mr. Skoglund, I'm going to represent to you that this is the Georgia statute that pertains to testing pre-election testing and voting equipment.

And if we could please scroll down to the highlighted portion in Subsection C.

Mr. Skoglund, it says there on or before the third day preceding a primary or election, including special primaries, special elections, and referendum elections, the superintendent shall have each electronic ballot marker tested to ascertain that it will correctly record the votes cast for all offices on all questions and produce a ballot reflecting such choices of the elector in a manner that the State Election Board shall prescribe by rule or regulation.

- Did I read that correctly?
- 15 A. Yes, you did.

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- 16 **Q.** What does that mean to you as a cyber -- as a security person?
- A. This is essentially the description of what the logic and accuracy test ought to be to ensure that the technology is functioning correctly.
- Q. And so when you say this is what it should be, what
 particular aspects of this are you focused on to arrive at that
 conclusion?
- 24 MR. TYSON: I'll object to the extent this calls for 25 a legal conclusion. But I believe Mr. Skoglund can answer

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based on his personal understanding of it.

MR. McGUIRE: I'm just asking, Yo
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MR. McGUIRE: I'm just asking, Your Honor, as a security person what does he -- which aspects of this does he feel are sufficient because he just said it was sufficient.

THE COURT: Okay. Proceed.

A. The keywords that jump out to me there are the -- in the second line of it where it says each electronic ballot marker and then in the following line when it says record the cast votes for all offices and all questions. To me, that is a good comprehensive way to define the scope of what we're testing, the question that we're asking when we perform logic and accuracy testing.

We're going to be testing every BMD for every office and every question that is tested will correctly record the votes and produce the ballot.

MR. McGUIRE: Thank you.

And we can take that exhibit down. If we could put up PD 19, please.

- Q. (BY MR. McGUIRE) Now, Mr. Skoglund, I'm showing you PD

 19, which is the document that is already in the record. It is

 Document 809-4, Page 25. If we could scroll down so that
- 21 Document 809-4, Page 25. If we could scroll down so t
- 23 Mr. Skoglund, have you seen this document before?
- 24 **A.** I have.

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25 **Q.** What is your -- what is this document?

Section D is visible in the frame.

- 1 A. This document is what I believe is the guidance from the
- 2 | State of Georgia or from the State Election Board to how the
- 3 BMDs and printers should have their logic and accuracy testing
- 4 performed.
- 5 Q. And this Section D deals specifically with the BMD and
- 6 printer. Can you take a quick look at that and tell us in your
- 7 | view is that equally adequate as the statute that we just
- 8 looked at?
- 9 A. No, I don't think that it is adequate.
- 10 **Q.** Why not?
- 11 | A. Because it doesn't test -- it doesn't follow what was just
- 12 | in the previous statute that we looked at. It is not testing
- 13 | every machine and every what we call ballot position. Instead,
- 14 | it says that it is acceptable to just test some of those on
- 15 | some of the BMDs and not other ones on other BMDs.
- And it notes there at the very bottom all unique ballot
- 17 | styles do not have to be tested on each of the BMDs, which I
- 18 | think is not correct.
- 19 **Q.** Okay. When you say not --
- 20 THE COURT: Go ahead.
- 21 MR. McGUIRE: I'm sorry, Your Honor.
- 22 | Q. (BY MR. McGUIRE) When you say not correct, what do you
- 23 | mean exactly? Do you mean not consistent with the law, or do
- 24 | you mean it is not adequate? What do you mean?
- 25 \mid **A.** Both actually. I should clarify. Yes, it is both. I

- 1 think it doesn't -- it does not match my understanding of what 2 the statute was that we just looked at. And it also is, again, defining the scope of testing such that we are not asking all 3 the questions to all the machines all the time.
 - And if this is the -- if this is the procedure which BMDs Q. and their printers are actually tested under, do you have an opinion on the significance of the difference between this procedure and what the statute requires for purposes of the security of the system?
 - MR. TYSON: I'll object to the extent this assumes that there is a distinction between those two, but I understand Mr. McGuire's question.
- 13 THE COURT: Go ahead and proceed.

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- I'm sorry. Could you ask the question again. 14
 - (BY MR. McGUIRE) Yeah. I may not be able to ask it in Q. exactly the same words. But, you know, to the extent that you understand this procedure that we're looking at, this D, testing of the BMD and printer, do you have an opinion on the significance of the departure between this document, these procedures, and what you understood the statute to require? Does it matter?
- 22 MR. TYSON: (Unintelligible). Sorry.
- 23 Yes, I think it does matter. Not just in a legal sense. 24 But in a technical sense, I think it matters. And there is a 25 good recent example of that. In Northhampton County,

- 1 Pennsylvania, where I reside -- in the state I reside, in 2 November of last year, there was some poor configuration of the ballot-marking devices that is a ballot marker and tabulator 3 4 all in one. And the configuration problem -- the systems were 5 not adequately logic and accuracy tested. So those configuration problems weren't caught. And the result is that 6 7 there were some contests on election night that had correct 8 tallies and other contests where the candidate that was
 - And so not only was it, you know, a big fiasco to sort of sort out, but the public's trust in the election was really damaged. Thankfully this failure was on a machine with paper and the error was on the side of the tabulation of that paper. So the paper could be rescanned.
 - But if the error had been in the ballot-printing portion, as Dr. Stark has testified about is a concern, it would not have been able to correct those results.
- 18 Q. (BY MR. McGUIRE) And by that, you mean using this
 19 procedure versus the one in the statute?

eventually the winner got zero votes.

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- A. That's right. If you don't catch the problems in the BMD and ask yourself if every BMD is operating properly, then you open yourself up to having results that you can't detect are wrong.
- Q. The example you just gave in Northhampton, Pennsylvania, was of a misconfiguration of the BMDs. Would your conclusion

- hold true in the event of intentional malware attack that had altered the functioning of one or more BMDs?
- 3 A. Yes, it would. There is no real distinction between
- 4 | manipulation, you know, or malfunction. There is an intention
- 5 is the difference. But the machine is not acting according to
- 6 its specifications. It is not doing what it is supposed to,
- 7 | which is what logic and accuracy testing is designed to test.
- Q. Okay. So I asked you about the changes to central count
 scanner settings that the plaintiffs have proposed.
- 10 You heard Dr. Coomer and Mr. Harvey suggest on Friday that
- 11 | changing scanner settings might implicate EAC certification,
- 12 | did you?
- 13 **A.** I heard them say that.
- 14 Q. Okay. Do you agree with their testimony on that point?
- 15 **A.** No, I do not.
- 16 **Q.** Why not?
- 17 A. The EAC certification doesn't reference specific settings,
- 18 | such as color and gray scale and dots per inch. So when
- 19 Democracy Suite 5.5-A is certified, it is certified for all
- 20 | available settings. And the scanner documentation shows that
- 21 these settings are available.
- 22 | Q. So the EAC certification does not specify the DPI setting
- 23 | required for central count scanners?
- 24 A. It does not.
- 25 **Q.** Okay. And are you aware -- and it doesn't specify that

- central count scanners have to be set to scan only in black and white?
- A. That is correct. On the dots per inch, I would also add
 my understanding from the previous testimony is that it is
 actually different on different machines, the central count

scanner and the precinct scanners. So it is already different.

- 7 **Q.** Are you aware of anything in the EAC test plan or the certifications or approvals of 5.5-A or to the extent you know
- 9 5.5-A (GA) that would preclude Georgia from adjusting the
- 10 settings of the Dominion central count scanners?
- 11 **A.** I do not.

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- 12 **Q.** In your opinion, would an order from this Court that
 13 requires changes to those scanner settings void or violate any
 14 current certification or approval from the EAC?
- 15 **A.** No, I don't think it would.
- 16 **Q.** Okay. Finally, I want to switch gears and ask you about
 17 the plaintiffs' request for BMDs not to be used and instead for
 18 paper ballots to be used for in-person voting.
 - I understand from your declaration in October of 2019 in this case that you are a judge of election in Montgomery County, Pennsylvania, and that the polling place you oversee uses a voting system manufactured by Dominion and configured for hand-marked paper ballots; is that true?
- A. That is correct. We use Democracy Suite 5.5-A, the same system.

- Q. So, first of all, what is a judge of elections in Pennsylvania?
- A. I'm not sure what the term is in Georgia. It is the head poll worker, the person who runs the poll placing and performs
- 5 sort of the highest level tasks in the polling place.
- 6 Q. So the hardware and software that you use in Pennsylvania,
- 7 how similar is it to what the plaintiffs are proposing should
- 8 be used here in Georgia?
- 9 A. It is the same suite of software. We use the -- what I
- 10 | understand to be the same hardware as well. We have the
- 11 | ImageCast X BMD with the external printer, as you have seen
- 12 | before, and the ImageCast precinct scanner.
- The difference is in the way that we deploy those. We
- 14 only deploy one scanner and one ballot-marking device per
- 15 | polling place rather than many of the ballot-marking devices.
- 16 **Q.** And the rest of the voters vote how?
- 17 | A. They vote -- the voters who don't use the ImageCast X BMD
- 18 vote by hand-marked paper ballot. That is the majority of
- 19 voters. In fact, in the last two elections, I think it has
- 20 been all but one voter who voted by hand-marking a ballot.
- 21 **Q.** And you heard Mr. Barron's testimony that using
- 22 | hand-marked paper ballots on election day would not -- would be
- 23 | possible for Fulton County?
- 24 **A.** Yes, I did.
- 25 \mathbf{Q} . Does your experience in Pennsylvania support that

- 1 | conclusion by him?
- 2 A. Absolutely. It works very well for us. We have been very
- 3 | happy with the system.
- 4 Q. Now, you also heard him testify that early voting might be
- 5 | a concern for Fulton County, did you not?
- 6 **A.** I did.
- 7 | Q. Do you have any reason -- well, first of all, do you have
- 8 | early voting in Pennsylvania?
- 9 A. We don't have early voting in Pennsylvania.
- 10 **Q.** Okay. So do you have reason to disagree with Mr. Barron's
- 11 | apprehension about conducting early voting without BMDs?
- 12 | A. No. I think that it is very feasible. I mentioned before
- 13 | that I have provided some testimony to the New York City
- 14 | council. That was actually specifically on this question.
- New York City had implemented early voting, and they were
- 16 | trying to figure out how they were going to do that
- 17 | logistically and from a technology perspective. So I was
- 18 | invited to speak and to talk about my recommendations to the
- 19 | city council.
- 20 And I recommended to them -- they were trying to decide
- 21 | between rolling out ballot-marking devices for everyone, which
- 22 | is what some people were pushing for, versus other solutions.
- 23 | I recommended other solutions being a ballot-on-demand
- 24 | printing. That is ultimately what New York City ended up
- 25 adopting. And my understanding is that worked very

successfully and they are going to continue using it.

The idea is just that at each early voting location you have a printer that can print a ballot on demand. And the solution that they went with is one made by KNOWiNK, the pollbook company that, I believe, Georgia uses as well. And it is called Poll Print. It directly interfaces with the pollbook so that when the voter checks in their ballot style is pulled up by the pollbook and the ballot instantly prints and it is handed to the voter for them to go then take and hand-mark. So it is sort of a just-in-time printing.

Q. So in that situation as I understand it, you are saying that the early vote center would stockpile some ballots but it would print most of them?

I think that their solution is to print them all

- immediately. I'm not positive on that. But I had actually recommended to them that they didn't have to do immediate printing, that they also could stockpile a sort of reservoir of each ballot style. So maybe 20 to 50 ballots of each style and then you pull the appropriate, you know, ballot style for each voter. Then you can use a ballot-on-demand printer to replenish those reservoirs of ballots as they were given out.
- Q. Okay. So in your supplemental declaration, which for the record is Document 680-1 at Page 29 -- I'm going to point specifically to Paragraph 11 -- you said that hand-marked paper ballot systems have shorter lines due to the rate in which a

series of voters can move through the polling place.

Have you observed this to be true in jurisdictions you are familiar with?

A. Yes. I think I have seen in my experience and I have read studies that show that it is true. The reason why -- in my county before we switched systems, we had DREs. And my polling place had two DREs, which meant that two voters could vote at a time. And that was the total throughput of the polling place. Only two voters could cast their vote at any time.

And if you had a particularly long ballot, it would take a long time for voters to make up their mind in the booth. But under the new system, when voters come into the poll, then we give them their ballot. They go to privacy stations to do the time-consuming part, to mark their ballot. In my polling place, we have seven to eight places for them to do that that are designated already. It is a combination of standup cardboard lecterns that people can mark their ballot at and also some tabletop privacy screens that are just very inexpensive plastic dividers.

And there's actually a couple of others that are in supply that we can set up if we need more and they provide clipboards if we needed any more. So that means that the throughput in our system now is much larger. It gives you potentially seven or eight voters who can vote at any one time instead of two. And that is the time-consuming part.

The process of scanning on the ImageCast precinct is very quick. So you can just feed your ballot in and then go on your --

- Q. So from the voter's perspective in your experience, what is -- is there a benefit to using hand-marked paper ballots versus BMDs?
- A. Definitely. There are a lot of -- a lot of them. One of them comes from that long line thing. I always have really liked the fact that voters who may need more time with their ballots, either to make decisions or maybe they have literacy challenges or language challenges -- they can take their time and not feel the pressure of a line building behind them.

 Where with the old system, you know, those voters had people behind them, you know, waiting and wanting them to hurry up, you know, visibly agitated. Whereas, now you can sit and take your time. And a slow voter and a fast voter can be voting side by side. Several fast voters can move through the process without the slow voter holding things up.
 - Q. Are you aware of any research that bears on this question of voter delay when using paper ballots versus electronic voting?
 - A. I am. There's two papers that come to mind. One is there is a paper that is coauthored by Charles Stewart from MIT. He is someone who I really admire. He takes a very data-driven approach to looking at election problems. And he looked at

this issue and found that waiting times are uneven across the country, found that a lot of the problems are in sort of the southeastern states with long lines, and concludes that those lines have an effect on voter trust of the system.

He determined that if you wait in line you are more likely to not trust your election and also that you are not as likely to trust the elections of other people in other places as well. So it has an overall diminishing effect on voter trust.

- Q. And you said that was one of the studies. Was there another?
- A. Yes. The other study is looking at Maryland elections and using data and computer simulations to compare the wait times between touch screen DREs and hand-marked paper ballots. And I found that the DREs are a limiting resource in the way that I just described, that they provide a bottleneck, especially if the ballot is really long.

They actually come up with a formula for determining, you know, how many screens you would need to handle the capacity and conclude that the hand-marked paper ballots are a better solution because they have more, you know, throughput capacity.

- Q. Okay. I would like to show you PX 61 and then PX 62 and have you confirm whether those are the studies you are talking about.
- This one would be PX 61, I believe. And that is -- is that one of the studies you were talking about? Or maybe you

- 1 | could scroll down. It says waiting to vote there.
- 2 **A.** Can you scroll down -- is that possible? -- to the next
- 3 page? Sorry. Yes, that is the one.
- 4 Q. This is the Stewart paper you referred to?
- 5 A. That's correct.
- 6 MR. McGUIRE: Okay. Great. I would move to admit
- 7 | this one, Your Honor, PX 61, and I would like to show you PX 62
- 8 next.
- 9 MR. TYSON: Your Honor, we'll object as hearsay.
- 10 Mr. Skoglund hasn't been participating in the study. He read
- 11 | the study, and he liked it. That is the whole basis of it
- 12 | coming in. I don't see that there is any relevance here.
- 13 | There is no policy discussion, not what different things can be
- 14 done. But it is not relevant to the claims before the Court.
- MR. McGUIRE: Perhaps I could ask another question or
- 16 two then of Mr. Skoglund.
- 17 Q. (BY MR. McGUIRE) Mr. Skoglund, are these studies the
- 18 kinds of things that you would rely upon to form your opinions
- 19 | as an expert?
- 20 | A. I would rely upon it. I have relied upon them.
- 21 **Q.** So in terms of the opinions you are expressing here today,
- 22 | are these two studies -- these underlie those opinions?
- 23 A. Yes, they do.
- 24 MR. McGUIRE: Okay. Based on that, Your Honor, I
- 25 | mean, he has already testified to the underlying stuff. I

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1
     don't know why it would be objectionable to admit it as
 2
     foundation for what his opinions were.
 3
               MR. TYSON: Again, Your Honor --
 4
               THE COURT: Fine. I'll just take it under
 5
    advisement.
               Thank you. Go ahead.
 6
 7
          (BY MR. McGUIRE) The other one is PX 62. Is that the
 8
    other study you were referring to?
 9
        Yes, it is.
    Α.
10
               MR. McGUIRE: And similarly I would move for that one
11
    to be admitted as well.
12
               MR. TYSON: Same objection, Your Honor.
13
               THE COURT: All right.
          (BY MR. McGUIRE) Mr. Skoglund, just to wrap up this
14
    Q.
     section, so in your opinion do you have an opinion --
15
16
               THE COURT: I'm sorry. Would you just mind reading
17
     into the record the name of each study and the authors and
    their affiliation.
18
19
               MR. McGUIRE: Certainly, Your Honor. I can do that.
    P -- I'm sorry. Let me pull it up. 62 -- PX 61, the authors
20
     are Charles Stewart and Stephen Ansolabehere, and the title is
21
22
    Waiting to Vote. It is from the Election Law Journal: Rules,
23
     Politics, and Policy dated 2015.
               THE COURT: Its affiliation?
24
25
               MR. McGUIRE: I'm sorry. It is -- I'm sorry. It was
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1 from MIT open access articles. It is from the MIT faculty. 2 THE COURT: Okay. MR. McGUIRE: The second article, PX 62, is from 3 4 proceedings of the 2010 electronic voting technology workshop, 5 the workshop on trustworthy elections in Washington, D.C. on August 9 and 10, 2010. The title is, Queuing and Elections: 6 7 Long Lines, DREs, Paper Ballots. That is by William Edelstein 8 and Arthur Edelstein. 9 THE COURT: And that's Johns Hopkins University and 10 the Mr. Edelstein from the University of California in San 11 Francisco. 12 I just want in the record for it to be properly 13 referenced. Before I let them in, I'll have to take a look. 14 (BY MR. McGUIRE) Mr. Skoglund, just to clarify one point, Q. that one article in its title referred to DREs. And we have 15 16 been talking about BMDs today. 17 Does that make a difference? No. Because the key point of those is about providing a 18 19 voting resource. Right? So each one is still a resource. If 20 you have two or three or four in a polling place, that is the limit of that resource. 21 22 And if anything, ballot-marking devices take more time 23 because there is that extra process of printing a piece of paper, which hopefully voters are going to spend time looking 24 25 at, even if the evidence is thin that they do.

and when voting starts?

- Q. So, Mr. Skoglund, based on your own experience and based on what you have observed in the New York City council, do you have an opinion on whether a large Georgia county like Fulton could feasibly implement hand-marked paper ballot voting during early voting and on election day in the time left between now
 - A. Absolutely. I mean, for hand-marked voting, that is done in large cities and large counties across the nation, so, you know, Boston and New York City as we mentioned. Same for early voting.

In my personal county, we have about 75 percent, I think, the size of Fulton County. I'm sort of doing rough math there. But I think that is about right. We had no problems moving to it.

- Q. So to wrap all this up, in your expert opinion, is Georgia's voting system secure?
- A. You know, this question has come up a couple of times from other experts as well. And in my line of work, we don't think of it as being secure or insecure. And we don't try to measure the distance the system is from either one of those and that is because we can't predict the future.

Vincent Liu when he testified talked about some of the engagements he's been on where they didn't find anything. But he could have been an hour and a few key strokes away from finding a big problem. Instead, because we can't predict the

future, instead we engage in something called threat modeling where we try to look at the potential problems that could happen and then measure the risks of those problems.

And the way we measure risks is with two things: The likelihood of something happening and the impact if it does happen. And looking at those and measuring those allows us to then weigh our need to do something versus the risk involved with it, to weigh competing options, and also to prioritize, you know, where our biggest concerns are so that we can add mitigation, which is a word just for -- you know, for lessening the risks.

When you go on vacation, you -- you lock yours doors and leave on some lights and hold the mail. Those are just mitigations for you not being robbed. It doesn't mean you won't be robbed while you are away. But they make the likelihood less.

And we look for ways to build in resilience to a system.

A good example of that is like a power generator. If the power in your house goes out, you can lessen the impact of it by having a backup generator.

Q. And how would you regard Georgia's current BMD voting system using the methodology you just described?

MR. TYSON: Your Honor, I'll object to this line of questioning as beyond the scope of Mr. Skoglund's expertise.

This is now about threat modeling, risk assessments. I don't

- think we have had any indications of the expertise of
 Mr. Skoglund in those areas.
- MR. McGUIRE: Your Honor, he has been all but qualified as an expert in cybersecurity. And this is right down the middle of that.

6 THE COURT: I'll permit it.

- Q. (BY MR. McGUIRE) Again, my question, Mr. Skoglund, is:

 How would you regard Georgia's current BMD voting system using
 the methodology that you just described?
- A. The methodology said that we would first look at the threats. And those threats are not just threats of hacking by foreign actors. But it is everything from machine failures to long lines to running out of emergency paper ballots, power outages, pandemics as we have now seen.

So as I understand the plaintiffs' concerns in this case, a lot of those are the risks that they see in the voting system, the risk of not counting votes, returning outcomes that don't reflect what the voters intended, long lines, Poll Pad failures. Those are what I see as the risks.

And we can't predict whether any of those will happen or not because we can't see the future. But we can measure the likelihood and the impact if they do. That is what cybersecurity would do is look at the likelihood and the impact.

And I think there has been evidence that the risks have a

- 1 high likelihood and a significant impact. So we would then 2 seek to mitigate those risks to try and prioritize them and, you know, to lessen the impact of them by either, you know, 3 4 putting new measures in place or adding resilience to the 5 system so that we could recover from problems if they did 6 happen. 7 So to answer your question, I think that the current risk 8 level in Georgia's voting system is high. And I think that 9 mitigations are warranted. 10 MR. McGUIRE: Thank you. I have nothing further on 11 direct, Your Honor. 12 THE COURT: Thank you. Does the State wish to pursue 13 any questions? 14 MR. TYSON: Yes, Your Honor. Just a few. CROSS-EXAMINATION 15 16 BY MR. TYSON: 17 Yes. Good afternoon again, Mr. Skoglund. 18
- Mr. Skoglund, I want to ask first: If nothing changes in
 Georgia's election system, can Georgians have confidence in the
 outcome of the 2020 elections?

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- A. It goes back to what I just answered in my last question.

 It is not a yes-or-no answer. I think that we can't predict

 the future in the same way you can't predict if your house is

 going to be robbed. All we can do is lessen the risk.
 - So, you know, I can't predict what will happen and no one

- 1 | else can. I think that we have seen that the threats are very
- 2 | high and very prevalent. I think there is plenty of evidence
- 3 of that, plenty of reason to be concerned, and therefore reason
- 4 to take steps to mitigate that.
- 5 But I don't think we can form an opinion about it is
- 6 | secure or is it not secure. I just don't think that is a
- 7 useful question.
- 8 Q. Have you ever designed a logic and accuracy testing
- 9 process for any voting system?
- 10 **A.** I have not designed one. I have made recommendations
- 11 | about how they should be designed.
- 12 **Q.** Have you ever conducted a logic and accuracy testing
- 13 | regime for any election system?
- 14 A. I have never held that position, no.
- 15 **Q.** And when you mentioned BMDs in Pennsylvania that had the
- 16 | configuration errors, those were not Dominion BMDs; correct?
- 17 **A.** They were not.
- 18 Q. You mentioned that you testified to New York City
- 19 | regarding the implementation of early voting.
- 20 Do you recall that testimony?
- 21 A. That's correct.
- 22 | Q. What time line was New York City able to utilize to
- 23 | implement early voting?
- 24 | A. I don't know the exact time line. I know that in 2018, I
- 25 | believe, is when the legislation was passed to permit it. I

- 1 | spoke in April of 2019, and they had not made a decision and,
- 2 you know, did not make one, I know, for a couple of months at
- 3 | least afterwards. I don't know exactly when.
- 4 But they did end up making a decision between the time
- 5 that I testified and November. I don't know the exact dates.
- 6 Q. And is it your testimony that there is sufficient time in
- 7 | Georgia to design a complete paper ballot early voting system
- 8 | in the 28 days between today and when early voting begins?
- 9 A. I'm not an expert on election administration. So I
- 10 | wouldn't want to try to characterize that. But I know that --
- 11 | yeah. I'll leave it at that.
- 12 | Q. And you indicated that a solution can be printing ballots
- 13 | at an early voting site on the spot; correct?
- 14 A. Correct. That is what my understanding is New York City
- 15 is doing with the KNOWiNK Poll Print.
- 16 Q. Do you recall Mr. Harvey's testimony that there is one,
- 17 | maybe a couple of more ballot printing -- ballot-on-demand
- 18 | printers in each county?
- 19 | A. You mean that the counties already own one in their
- 20 offices?
- 21 **Q.** Yeah.
- 22 **A.** That is correct. That is very common for many election
- 23 | offices that they have one, you know, in the office that they
- 24 | can use to print ballots in a pinch.
- 25 \mathbf{Q} . And you heard Mr. Barron's testimony that there will be at

- 1 | least, I believe it was, 33 early voting sites in Fulton
- 2 County?
- 3 A. Yes, I did.
- 4 Q. And so that would require a significant number of
- 5 | purchases in addition to the setup to even think about that
- 6 kind of operation; right?
- 7 | A. It would require new purchases. Yeah. In New York City,
- 8 | I think they had 60, 65, somewhere in that range early voting
- 9 sites. So yes, you would need to make new purchases.
- 10 \mathbf{Q} . And you testified about line length, and you said that the
- 11 | number of stations or the equipment was relevant to that?
- 12 A. Correct.
- 13 | Q. And do you know what the allocation of BMDs per voter for
- 14 | each precinct in Georgia is?
- 15 A. I heard it at one point. If you were to tell it to me, I
- 16 | could refresh my memory. I want to say it was in the 300s.
- 17 But I don't recall.
- 18 | Q. Well, what I really want to ask is: You didn't take that
- 19 | into account in forming opinions about the -- you didn't take
- 20 | into account Georgia's allocation of resources when forming
- 21 | your opinions about the number of voting stations and
- 22 | line length in Georgia; correct?
- 23 | A. No. My testimony was about generally a comparison between
- 24 | the two. And the study, you know, that I cited was about
- 25 | looking specifically at Maryland.

1 And you agree that the throughput, as you referred to it, is based on the allocation of equipment; correct? 2 Correct. That is the limiting constraint resource. 3 Α. 4 can only have that many voters voting at that -- at that time. 5 If a machine goes down for any reason or if the activation cards stops working, then that number gets reduced. 6 7 MR. TYSON: Thank you, Mr. Skoglund. I don't have 8 any further questions. 9 THE COURT: Anything occasioned by that? 10 MR. McGUIRE: I'm sorry? 11 THE COURT: This is just -- Mr. McGuire, did you have 12 anything else? 13 MR. McGUIRE: No, nothing on redirect. No, Your 14 Honor. THE COURT: All right. Would you wait a minute and 15 16 let me just see whether I have any questions. 17 THE WITNESS: Absolutely. Thank you. THE COURT: Could you bring up the logic and accuracy 18 19 testing document again? I don't know what that document is. 20 MR. McGUIRE: PD 19. 21 EXAMINATION 22 BY THE COURT: 23 Mr. Skoglund, what is the -- based on your own programming and experience in cybersecurity, what is the role of logic and 24

accuracy testing just looking at the big picture?

25

A. I mean, what you ultimately are trying to find out is do we have belief that every piece of equipment is going to operate properly and record votes properly on election day.

And so we're crafting a set of questions to ask in advance to try and ascertain if that is true.

So I would say you would want to test every machine because you want them all to work properly. You want to test every ballot style because you want every ballot style to work properly. And you want to check every contest. At a minimum, you want to make sure that every candidate is able to receive a vote; that if you were to put a vote -- let's say a contest between George Washington and Thomas Jefferson -- a vote for George Washington should be able to be marked and observed to be correct and it should be able to go through the tabulator when you do the logic and accuracy testing on the tabulator to show that it did, in fact, record a vote for George Washington. And you should do the same for Thomas Jefferson to make sure that his -- a vote for him would work all the way through to the tabulation.

But you also have to make sure that the -- that the votes aren't being swapped, that they are not crisscrossing. Right? If you just vote one vote for George and one vote for Thomas, you won't necessarily know that they -- that the correct winner is going to be indicated. So I think you have to check a number of things.

2.2

And I actually recommend usually that we go a step further even than the statute does and test the audio ballot that is used by voters who are blind to ensure that there is no errors there because you wouldn't want those to be crisscrossed. And the same for language -- for ballot marking in other languages. There is a lot of testing that goes into these ballot-marking devices to make sure that the technology is going to behave correctly on election day.

- Q. So when you say crisscross, you mean that I voted for George Washington but it is recorded as Thomas Jefferson?
- A. Correct. Let's say that I followed a logic and accuracy procedure. So I cast one vote for George Washington, and I printed on the ballot-marking device, and I run it through the tabulator. Then I do another one for Thomas Jefferson and do the same thing.

Now I have one vote for each. So when I look at the final results, I expect to see one vote for each. But how do I know that they didn't get swapped? How do I know that it correctly attributed them?

So usually what you would do is give two votes for George Washington and one vote for Thomas Jefferson. That way in the end results you can see each candidate was capable of receiving a vote and they were correctly attributed.

Q. What, if any, issues do you see if you are only testing for one candidate's race per machine?

- A. Then if you are thoroughly testing that candidate's race, then you can feel good that that candidate's race is not going to have problems. You cannot make any assertions about any other race on the ballot.
- It is similar to the problems with the risk-limiting audits that we talked about. If you are only auditing one race, you are only going to detect problems in one race.
- Once you test, the scope of your testing determines whether you will find the problems. If you don't look, you can't find them.
- Q. Well, if I -- I mean, this is structured right now so that I have, let's say, five machines. I test machine Number 1 on the presidential race and the next one, machine Number 2, on senate race number A or letter number A.
 - Does the fact that I've been able to test the presidential race on the first machine tell me anything about the functioning and -- internal functioning and accuracy of machine number B that I'm testing for the senate race?
 - A. It does not. It does not. And you can make -- you can make an assumption or use that to think that maybe it should be right. But you have not tested it. So you don't know.
- Q. And I mean, each of these are independent basically computers; is that right?
 - A. That's correct.

 \mathbf{Q} . All right. And with respect to the unique ballot style,

- what is the issue in your mind specifically about why each
 ballot style should be tested on each BMD? I know it provides
 that they don't have to be. But why in your view --
 - A. Ballot style is a separate discrete unit. So an example is in a primary you might have a ballot style for the republicans and a ballot style for the democrats. Those are two separate styles.

In some -- some polling places, you may have, you know, school board elections that are different on one ballot and not on the other. Whereas, everything else on the ballot is potentially the same.

I think you need to check both of those because the ballot itself is not just the change to the bottom of it. There's all sorts of other information that is there as well.

- Q. You mean the races. But does it also affect in terms of what is being tested on a logic and accuracy how it -- how the computer computes and how it records the information?
- 18 | A. I'm sorry. Could you ask that one more time.
 - Q. I'm just trying to understand. Is the logic and accuracy testing regarding how the computer computes that particular race and also where it locates the information?
 - A. Yes. So on the ballot-marking device, you are testing that it marks a ballot correctly; that whatever you do on the screen is reflected in what is output on paper at the end.
 - On a tabulator, you're validating that when you take the

input of the ballot into the tabulator that the totals that come out at the end match correctly. In both cases, you are looking to see if what goes in gives you what you expect to come out on the other side.

Q. And I guess from your perspective -- and I know I have asked this in different ways. But I want to just make sure.

What you perceive as the problem about just testing one race is it doesn't yield information about how the computer handles the full range of the ballot?

A. That is correct. It is not testing that each of these machines is behaving properly on all of these contests. So if you -- if we sort of give a hypothetical example, let's say that there was a contest where we found that one ballot style -- the school board race at the bottom was computed correctly but on another ballot style it wasn't. And we asked ourselves afterwards, well, why didn't we detect that? Why didn't we find that there was this problem in this one race? And it is not just hypothetical. That is actually what happened in the example I gave in Northhampton County.

There was some races that worked perfectly fine. Their totals were exactly right. If you had looked at that race, there was no problem. But then there were other contests where something that was a little bit different about those contests and the way that it was set up caused a problem so that some candidates got zero votes -- where winning candidates got zero

1 votes. 2 MR. McGUIRE: Your Honor, if I may, just a couple of 3 questions inspired by your own. 4 REDIRECT EXAMINATION 5 BY MR. MCGUIRE: Mr. Skoglund, is it fair to say that logic and accuracy 6 testing is a functional test or is it a security test? 7 8 It is both. I mean, it is the way that you make sure that 9 it is -- that it is working properly. And that is in the realm 10 of security. I mean, like I said, the threats to security are 11 not just from foreign nation states or from insiders who may be 12 trying to manipulate the election and have access to the 13 files -- right? -- and know what you are going to test where. 14 It is also, you know, for more common type problems as well. In the case of Northhampton County, it was a common type 15 16 mistake in the configuration. 17 So it is both. It is a functional test that is an important part of security. 18

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- Q. Would you expect conducting a logic and accuracy test to necessarily reveal the existence of malware on a system, for example?
- No, it would not reveal that. I mean, it could reveal that. If there was, let's say, clumsy malware, it might reveal that at that point. But the famous case is Volkswagen's test of their emissions. You know, they gamed the system so that,

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1
     you know, when they were testing it, like during logic and
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     accuracy essentially for the cars, they would pass their test.
    But then in the real world, you know, they were failing the
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 4
    test.
 5
         And the same thing is here. You could easily have malware
     that was set to not operate before a certain date or to wait
 6
 7
     until, let's say, 53 ballots were cast before it kicks in. So
 8
     there are all sorts of ways malware could evade these tests.
 9
               MR. McGUIRE: Thank you. Nothing further.
10
                           RECROSS-EXAMINATION
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    BY MR. TYSON:
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         Mr. Skoglund, just one brief question. You have never
13
     seen actual malware in an actual election affect the
    ballot-marking device; correct?
14
15
          I'm sorry. When you say have I seen, what do you --
    Α.
16
          Do you know of any instance in the United States where
17
    malware has been put on a ballot-marking device in an actual
18
    election?
19
    Α.
         No, I don't. Ballot-marking devices are very new to the
20
    market. They really just started being sold as systems for all
21
    voters to use in the last four years or so.
22
         Before that, they were much simpler. They were really
23
     just filling in the ovals on regular ballots.
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               MR. TYSON: That's all I have, Your Honor.
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THE COURT: Thank you very much, sir.

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               Are we through with the presentation of evidence,
 2
     Counsel?
               MR. TYSON: For the State defendants, yes, Your
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 4
     Honor.
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               MR. CROSS: Yes, for Curling plaintiffs.
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               MR. McGUIRE: For Coalition as well.
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               THE COURT: All right. Are there any -- if there are
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     any exhibit issues or any evidentiary issues, why don't we take
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     them up afterwards and just making sure we have the exhibits in
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     order or that I have ruled on everything -- whatever is
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    outstanding or that I will in that event.
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               We're about to -- for those who are participating --
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     everyone is participating remotely -- but listening in, we are
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    going to have closing argument.
               I have allocated 20 minutes. The plaintiffs have two
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     sets of counsel. Fulton County and the State represent the
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     defendants, and it will be the same thing.
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               So if the State defendants haven't determined how you
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     are dividing it, please do. I could slow things up because I
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     have my own questions as you have all seen and have some more
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     questions about the audit issues.
22
               I will not -- any time I spend on my questions -- you
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     responding to my questions I won't count against you. I'm
     going to allow everyone to take a restroom break, and we'll --
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25
     it is 1:47. We should come back immediately. When we see
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     everyone here, we will start then. Otherwise, I will assume we
 2
     will be starting within five minutes.
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               MR. TYSON:
                           Thank you, Your Honor.
 4
               MR. CROSS: Thank you.
                     (A brief break was taken at 1:47 P.M.)
 5
               THE COURT: All right. Are we ready to begin?
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 7
               MR. BROWN: Yes, Your Honor.
 8
               MR. TYSON: Yes, Your Honor.
 9
               THE COURT: All right. Who for plaintiffs is
10
    proceeding?
11
               MR. McGUIRE: Yes, Your Honor. We were planning to
12
     spend ten minutes for -- I would go for ten minutes and then
13
    Mr. Cross would spend ten minutes on rebuttal.
14
               THE COURT: All right.
15
               MR. McGUIRE: Shall I begin?
16
               THE COURT: Yes.
17
                            CLOSING ARGUMENT
18
               MR. McGUIRE: Thank you, Your Honor. I'm Robert
19
    McGuire. And I'm counsel for the Coalition plaintiffs in this
20
     case.
               In the course of bringing this request for relief,
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    we, the plaintiffs, have been guided by this Court's previous
23
     holding from September of 2018 when the Court ruled that if a
24
     new ballot system is to be launched in Georgia in an effective
25
    manner it should address democracy's critical need for, quote,
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transparent, fair, accurate, and verifiable election processes that guarantee each citizen's fundamental right to cast an accountable vote.

Now, all of the evidence that is in front of the Court, whether in the papers or through this three-day hearing, shows that the State's BMD system satisfies none of these requirements. As the Supreme Court held in Wesberry vs.

Sanders in 1964, the right to vote is one of our most precious rights. Other rights, even the most basic, are illusory if the right to vote is undermined. And that is exactly what has happened or will happen if the changes that the plaintiffs are requesting are not made for the upcoming November election.

Mr. Tyson said in his opening that ultimately the plaintiffs want to vote using a different system in their precinct. He calls this a policy dispute that the plaintiffs lost in policymaking bodies and they are trying to enforce in court.

Nothing could be further from the truth. The plaintiffs here are not asking for a whole new voting system. They are not asking for a different voting system than the voting system that has been put in place. What we are asking for are four constitutionally required improvements to the existing voting system. And each of these four improvements that we are asking the Court to order will either remove complexity and risk or they will add much needed redundancy.

So I'm going to go through each of those four items of relief very briefly.

Improvement one is to require the State to provide updated paper pollbook backups in the polling places to ensure that there is no disenfranchisement of in-person voters as we have seen in past elections.

Improvement two is going to remove the BMD touch screen printer combo and instead have in-person voters use hand-marked paper ballots as the default voting method.

Improvement three has to do with scanning. For central scanning, the Secretary should change the sensitivity settings on the scanners so that any perceptible voter mark is either counted or reviewed by a vote review panel. For the precinct scanners, voters should be provided black pens that they can use to mark emergency ballots.

Fourth and finally, we have improvements that we are asking the Court to order in respect to auditing. So I'm going to briefly touch on each of these four.

With respect to updated paper pollbooks -- updated paper pollbook backups, the State defendants have never denied that their malfunctioning electronic pollbooks led directly to long lines and resulting disenfranchisement during the June primaries here in Georgia.

Mr. Barron confirmed that he and the other metro counties are still experiencing serious problems with the Poll

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Pads in that September election. We are still experiencing them in the September election. He also confirmed that having updated paper Poll Pad -- pollbook backups would help. Court has been asking the State defendants since at least the December 6th, 2019, status conference, which is discussed in our brief for the Poll Pad motion at 800-1 at Pages 8 and 9 -the Court has been asking the State defendants since at least December 2019 why updated paper pollbook backups should not be granted. And at this hearing when asked what the burden would be upon the State to provide this easy and effective remedy, Mr. Harvey still had no answer. In our brief, 800-1, on the pollbook issue, Coalition plaintiffs described in exhaustive detail our efforts to try to

convince the defendants to make this change outside of litigation. It is an easy change to make.

It is clear the State defendants are not going to do anything unless they are ordered to do so. And this is the opportunity for that improvement to be made.

The second improvement that we are requesting is to remove BMD touch screen and printer combos and use hand-marked paper ballots instead. The United States vs. Saylor case from the Supreme Court in 1944 recognized that voters have a right, quote, to have their expressions of choice given full value and effect by not having their votes impaired, lessened, diminished, diluted, and destroyed by fictitious ballots

fraudulently cast and counted, recorded, returned, and certified. That is a right that is 70 years old in the Supreme Court's eyes, and it cannot be guaranteed by Georgia's current voting system because the lack of security makes it impossible.

Harri Hursti's testimony showed that the BMDs are insecure and simply cannot be secured. He showed that the system hasn't been hardened, that the BMDs have a huge attack surface. He showed that Xbox console and Russian games are installed on the EMS servers in multiple counties. Physical security of the EMS server is all but nonexistent. He showed that multiple ballots can be printed and cast by a voter.

The State's defense that the system is certified by the EAC provides no comfort for the reasons that Mr. Skoglund testified about under seal. As Harri Hursti explained, voting system testing focuses on functionality, not security.

Penetration testing by voting system labs is very limited.

Dr. Halderman's testimony showed that the BMD system is vulnerable to undetectable manipulation. The very same kind of evidence underlay this Court's decision to find the DREs unconstitutional. The same kind of reasoning justifies finding the BMDs unconstitutional now.

This insecurity cannot and is not being remedied.

The LAT procedures, which aren't even capable of catching sophisticated malware, as Mr. Skoglund testified just moments ago -- they are not even being run in their most bare bones

basic fashion that State law requires. Each machine is being tested on one contest, not even on multiple ballot styles. And that is the State's official guidelines. The State just doesn't do the testing that even State law requires.

You have heard from Professor Stark, Dr. Stark that BMDs are not auditable. There are multiple reasons for it. But people don't look -- they don't look at their ballots. They don't review whether the ballot card that is coming out of the printer matches what they did on the machine. And because of that, the BMD ballot cards cannot be meaningfully audited. They are not what the voter did. They are what the machine did. And the machine can be manipulated to do things that the voter did not do.

Finally, on this point, BMDs violate ballot secrecy. The touch screens violate ballot secrecy because they are so large that anyone within a line of sight to a person's BMD screen can see how that voter is voting. There is a mountain of evidence in the record on this issue. It is completely uncontroverted.

The only thing that the State says that even comes close to trying to controvert it is Mr. Harvey saying that they tried to develop sketches of how to set up a polling place so that it wouldn't happen. But all of the evidence or most of the evidence that has been introduced came in after those sketches were implemented. They don't work. The State has not

been able to fix this problem. They are aware of the problem, which is why they are trying to solve it with sketches. But they are unable to solve it.

As a result, rights are being violated. And the right to vote is being burdened -- severely burdened because the secret ballot is fundamental to the right to vote. And when the secret ballot is denied, the right to vote is burdened because voters are unable to freely cast the votes that they want.

It is more than feasible for this second change to be implemented. It is already the emergency plan on election day. Rick Barron testified that Fulton County could do it on election day. You have got testimony -- you have got evidence in the record that Athens-Clarke County was able to do it overnight. Kevin Skoglund's testimony showed that New York City was able to do it. Mr. Barron, in fact, said that not only could it be implemented for election day but he testified that it would actually wind up giving him more time because it would take less time to deploy hand-marked paper ballots than to set up all of the BMDs.

Although the State defendants have made the argument, there is no evidence that there is not enough printing capacity to make this solution possible. And there is evidence that special paper isn't required for the ballots to be scanned into the tabulators. So there is really no reason not to replace

the BMDs. There is no good reason.

So what about early voting? Kevin Skoglund explained how that works in places that have lots of early voting centers, like New York City. Ballots can be stockpiled in early voting centers, especially the ones that are most likely to be used in particular locations. And they can be replenished every night using the ballot-on-demand printers, just like New York City does. It is simply not an argument that it is not possible to replace the BMDs with paper ballots. It is more than possible.

In the 1950s and the 1960s, federal courts transformed society in order to ensure that there was equal treatment under the law. The interests that are at stake in this case are similarly weighty, and they are no less fundamental.

The right to vote is ultimately the right that guarantees all of our other rights. That is why the Supreme Court said in Wesberry vs. Sanders that no right is more precious in a free country than the right of having a voice in the election of those who make the laws under which as good citizens we must live.

This case is about the right to vote, and it is about equal protection. And it is emphatically a role of the federal courts to protect those rights when they are deemed violated.

And the fact that there is inconvenience does not justify

violation of those rights. And as we have shown in the evidence, any inconvenience that the State argues is overblown anyway.

Improvement Number 3 has to do with scanning. We are asking the Court to order that the scanner settings on the central scanners be adjusted so that every vote counts. And that is a simple -- simple procedure that can be done.

The Court saw the ballots where people plainly to the human eye marked a vote that was then not counted. The State, the defendants, Dr. Coomer -- they approached this in a way which is disturbing because their answer is votes are being discarded, they are just not being counted. And that is an outrageous -- outrageous defense to take when people are actually losing their voice in elections.

And we have got evidence. They can't refute it.

There is no evidence on the other side. I mean, we have shown the Court ballots that have had votes discarded. Those people have lost the right to vote on those races. They are disenfranchised.

And the scanner settings, as Mr. Hursti explained, can be adjusted in a way that makes it -- that catches those votes. You just -- he suggested that you scan in gray scale or color. He suggested that you scan in the higher dots per inch setting, and he suggested that if that happens then you are going to be able to avoid getting rid of those votes.

claim, without any evidence, will solve this problem. The only evidence they have given you is Exhibit DX 4, which is the Michael Barnes document. DX 4 is a long draft analysis of the -- of the various scanner threshold settings. But the most important part is at the very end on Page 7 in the second to last paragraph. Even using the settings that they just adopted, which set between 10 and 20 percent as the range for the perceiving ambiguous votes, seven ballots out of their test deck were read as completely blank. Those are ballots that a human would have perceived as votes. Under Georgia law, if you can perceive voter intent from a ballot mark, you have to count that vote. Those seven votes would be people who under their current settings that they just adopted, would be disenfranchised. The answer is to adopt scanner settings that look at any human mark below the definite vote threshold as requiring review by a vote review panel so that a human can look at the ballot and determine whether there is actually a vote there. A machine should never

The State has adopted a new scanner rule that they

20 discard a human marking. That is arbitrary. It is

21 unconstitutional.

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MR. CROSS: Your Honor, I'm sorry to interrupt. We are going to have a time issue here.

MR. McGUIRE: And you know what? My timer isn't running. So I'm very sorry. I don't want to eat up Mr. Cross'

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     time. Let me just say the final point that I have on the
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    merits here.
               Improvement four is auditing. A voting system that
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     cannot be audited to confirm the outcome it produces is correct
     fails by definition to protect the right of each voter to enjoy
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     transparent, fair, accurate, and verifiable election processes
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     that guarantee each citizen's fundamental right to cast an
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     accountable vote.
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               Dr. Stark addressed this. If we keep the BMDs, they
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     can't be audited. They are not auditable because you are not
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     auditing what the voter did. You are auditing what the machine
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     said the voter did. And that is not an auditable record.
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               So, Your Honor, we would claim that there should be
     some auditing improvements. But they really need the BMDs to
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    be removed and replaced with hand-marked paper ballots.
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               And on that, I'll rest.
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               THE COURT: Yes. I would like to ask you one
     question that I'm not counting against your time. I don't have
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     right now Mr. Barnes' analysis in DX 4 in front of me. And I
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     will pull it up.
               But are the -- when you talked about the seven
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    ballots that came up as blank but, in fact, are markings, is
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     that referenced in his analysis?
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               MR. McGUIRE: It is, Your Honor. It is the second to
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the last paragraph on Page 7 of Doc. 887-4.

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               THE COURT: Eight -- I'm sorry?
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               MR. McGUIRE: It is Document 887-4 at Page 7. It is
    also Exhibit DX 4.
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                     (There was a brief pause in the proceedings.)
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               THE COURT: All right. Thank you very much. I was
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     looking at the document. Thank you.
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               MR. McGUIRE: Thank you, Your Honor.
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               THE COURT: That was 7 ballots out of 29 needing
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     physical review. All right. Thank you.
               MR. TYSON: Your Honor, I have talked to the Fulton
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     defendants, and they will not be closing separately, so we will
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     end up closing for all of the defendants.
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               THE COURT: All right. Very good.
                            CLOSING ARGUMENT
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               MR. TYSON: Your Honor, it has been said that
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     nostalgia is an incredibly powerful force. And in this case,
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     the plaintiffs are nostalgic for the day that they filed this
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     case more than three years ago. They continue to pretend like
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    nothing has changed.
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               But I think it is important for us to talk about what
    has changed since 2017 when this case began. The Georgia
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     General Assembly and Governor endorsed sweeping update to the
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     election infrastructure in this state after the 2018 election.
               Those updates included robust protections for absent
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    provisional ballots, updates to statutes about absentee
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ballots, requirements to harden the voter registration database. The General Assembly appropriated more than \$100 million to upgrade Georgia's voting system to a paper ballot system endorsed by the panel of experts on the SAFE Commission.

And Georgia became one of only a handful of states that developed statewide risk-limiting audits for use in the November 2020 election working with VotingWorks. And as you heard, that is the same organization trusted by the Department of Homeland Security to develop and implement auditing tools for elections.

Georgia has continued to remediate the risks associated with its computer systems. And Georgia now has record high voter registration, an online absentee ballot request portal, and state of the art technology.

Plaintiffs pretend like none of this ever happened. When we began on Thursday, I said you were going to hear a lot of recycled theories and speculation. And that is just where we have ended up. And those recycled theories and speculations are insufficient to carry the plaintiffs' heavy burden to clearly establish the preliminary injunction requisites for an election that is underway with absentee ballots going out this week and early voting beginning in 28 days.

First, the plaintiffs have not shown any likelihood of success on the merits. They haven't shown any burden on the

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right to vote. This is a case about ballot-marking devices principally. And there has been no testimony that a Dominion BMD system has ever been actually hacked in an election. The plaintiffs have not been able to connect any identified vulnerabilities from the old system to anything related to the ballot-marking devices. The most they have to hang their hat on after three days of this Court's time and after obtaining thousands of documents in expedited discovery is a single email about a USB drive that doesn't say for sure what happened. So apparently now their theory is that maybe -- just maybe a single USB drive in one county somewhere in the state has some sort of malware on it and it somehow works on both DREs and BMDs, can adept to each election prior to knowing the candidates or the races, and has remained hidden from Dr.

Halderman's forensic analysis of both the GEMS databases and actual DREs.

THE COURT: I think you have to slow up, or else

Ms. Welch is not going to be able to get your argument. I know
you want to get a lot in. But you have --

MR. TYSON: I apologize, Ms. Welch.

The preliminary injunction standard of clear entitlement is nowhere to be found in the evidence. Further, the plaintiffs have shown at most exactly the kind of thing that we can easily work through in discovery to figure out what

happened. And you heard extensive testimony about the functioning and the hardening of the system.

For paper backups, we have dealt with that issue extensively in the briefing. Mr. Harvey testified as to the burden on the State. The printing cost is significant. The Coalition plaintiffs haven't put forward contrary evidence at this point.

On scanners, the evidence shows that reasonable protocols, which are consistent with the instructions on the ballot and further the State's interest in the efficient and equitable administration of elections. The plaintiffs' expert, Mr. Hursti, did not testify to proper settings or offer any standard in the professional community. Instead, he only offered that the State should evaluate and study the proper settings. Well, the evidence shows that the State did so and Mr. Hursti chose not to review that.

And even still the evidence shows that --

THE COURT: That is not quite right. That is not quite right. I mean, basically he had one particular recommendation, and there is no indication as to the DPI that you looked at that at all.

I mean, there was a different suggestion that you made I realize in terms of basically the way you assess it.

But there was a very concrete recommendation that there was no indication that you-all looked at.

MR. TYSON: Your Honor, I think this gets us back to -- as Dr. Coomer explained, the way that the plaintiffs have framed up their threshold setting issue would require every single hand-marked ballot to be reviewed if there was no vote found because part of the oval would form part of the percentage.

And so I think we're, again, at a point where if we're down to -- if the State's current threshold settings and the DPI settings violate the U.S. Constitution, the -- that is a significant step forward, Number 1. But, Number 2, given dramatic increase in mail-in voting, Mr. Harvey's testimony is that having to do a personal review of every single hand-marked ballot that has zero percent threshold, any stray mark anywhere, would delay certification of an election at a time of heightened political intensity. And that is only after the voter has disregarded all the instructions of how to fill out the ballot.

THE COURT: I don't think you really responded to my question. Did anyone look at the 300 DPI? And I don't have any basis from the testimony really for determining that that would mean every single ballot had to be examined.

MR. TYSON: Your Honor, I believe Dr. Coomer went into detail about the 300 versus 200 DPI, and the software is built around interpreting the percentage fills based on what it reads.

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So, again, if we're at a point where we're ordered to go to 300 DPI, I don't think there is any testimony that that is feasible or possible under the current system, as I understand it. THE COURT: Okay. Go ahead and continue. MR. TYSON: Thank you. The timely certification of this year's election is of critical State interest that outweighs even the slightest burden on the right to vote relating to scanners. On auditing, the evidence shows that Georgia's process is even more robust than almost every other state. And while plaintiff disagrees that BMD ballots can be audited at all, that position is hardly uniform across the field. And a reasonable policy disagreement among experts does not amount to

Dr. Adida made clear that the process used in Georgia has been carefully piloted. It is a necessary step for its proper implementation, as the National Academy recommends and similar to other states that have been early adopters of statewide audits.

a violation of the United States Constitution.

I know the Court had some concern earlier. The audits, as Dr. Adida testified, will involve a review of (unintelligible) individuals of the ballots. We are not relying -- this is a ballot pulling audit. But it is not going to be a situation where no one is ever looking at the actual

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    ballot to determine what the auditing process should be.
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               THE COURT: Is it correct what he said -- when I
     asked him about that, he said, yes, we are going to look at the
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    ballot. But what he is going to do then is he is never going
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     to compare that ballot to any electronic record for that ballot
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     as to the vote actually counted.
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               So I mean, why is it meaningful? He did not -- he
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    did not respond to that question at all.
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               MR. TYSON: And I believe as you will recall, Mr.
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     Rayburn spoke back in March to the process by how they were
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     doing this, that as the auditors are looking at each ballot you
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     are looking at the ballot and the audit mark. So you are
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     looking at what did the machine interpret, what did the vote --
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     what is on the ballot, and then you are comparing that. And,
     again, as Dr. Stark said, the purpose of a risk-limiting audit
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     is to determine did the right person win the race. It is not
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     to ensure that every single individual vote is being assigned
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     individually, but you are still looking at those issues.
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               THE COURT: I'll let you go on. We'll discuss this
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    more at the end. All right?
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               MR. TYSON: And considering, Your Honor, that the
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    vast majority of states are not going to conduct a
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     risk-limiting audit of any kind in the 2020 election, the
    plaintiffs haven't shown that the particular auditing method
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     Georgia is using places a burden on the right to vote or is in
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any way violative of the U.S. Constitution.

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THE COURT: But no other state virtually has done a statewide BMD system. That is the reality. You are an unusual situation. There are jurisdictions -- smaller jurisdictions, cities that have done BMDs. But this is basically the entire state. And so it is -- it does put the State in a much more challenging position.

MR. TYSON: Your Honor, again, I think that it is important to remember that, yes, while the number of states that currently use a statewide implementation of BMDs is a growing number but a small number right now, very large jurisdictions from Cook County to Los Angeles to other places around the country are using BMDs for all of their in-person voters as well.

So this is not a situation with the DREs where we're at the tail end of a system. This is a situation where Georgia is taking a significant step forward in this process in a lot of areas.

And so I think at the end, the burden -- the failure of the plaintiffs to identify a burden on the right to vote -- that should be the end of the preliminary injunction quest in this case.

But it is incredible to me that despite the lack of evidence of where we are on this and based solely on speculation, at least one of plaintiffs' experts, Mr. Hursti,

told Georgians they should have no confidence in our election system, a shocking allegation that to me undermines the very legitimacy of the elections the plaintiffs claim that they seek and is necessary for us to have a functioning democracy.

At the best reading, the plaintiffs at this point have shown maybe three things. One, there is a disagreement in the election community about the scope and the use of audits. Two, the rather unremarkable fact that people with unrestricted access can do what they want with computers, as Mr. Hursti testified. And, three, that voters who disregard instructions for filling out hand-marked paper ballots may have challenges with the scanners under the thresholds that were in existence before.

And none of these issues are sufficient for this

Court to find a likelihood of success on the merits for any of
the issues that are actually alleged in the plaintiffs'

complaints. And without the likelihood of success, there is
nothing this Court can do and there is no basis for a
preliminary injunction.

But, second, the plaintiffs have also presented no evidence of any irreparable harm. They just assume irreparable harm for purposes of this motion. They have nothing to say on the issue about the fact that this case is ultimately about the outcome of an election or the possible outcome of an election, not the individual right to vote, which means the case is

foreclosed according to Jacobson.

In order for there to be any injury to any plaintiff, a bad actor would have to design and build malware that is then placed in the BMDs that are right now being programmed for the November election that somehow can alter enough votes to make a difference but not enough for voters to actually notice.

It is not a manipulation that is discovered while conducting a risk-limiting audit and that actually affects the outcome of an election. And compared with the plaintiffs' claims in *Clapper*, that is a far more attenuated chain of possibilities than in that case.

And so the only thing that each plaintiff has to do to avoid that possible imagined theoretical scenario is to request a hand-marked ballot, fill it out by hand, and then return it in a dropbox by election day.

There is no irreparable harm here. And even if the individual plaintiffs can fix their injury this way, the evidence that we submitted on the Coalition for Good Governance's 9940 for 2018 indicates that 98 percent of their organizational budget is being spent on litigation. There is no diversion of resources.

Your Honor, on the third and fourth prongs, again, the plaintiffs' lack of evidence is staggering. They offer no evidence that their preferred method of voting would remedy their purported election security injury, rather than open

vulnerabilities for less sophisticated mechanisms of hacking.

They still offered nothing to explain why the system they dislike is unconstitutional for them but perfectly acceptable for disabled voters. They have presented absolutely no evidence from anyone with statewide election experience that what they propose is actually feasible.

They didn't give you anyone who opined that what they propose can be done in the 28 days between today and the start of early voting on BMDs. No one has designed a process to deploy paper ballots to every county's early voting site that includes every possible ballot combination. As you heard, Fulton County alone would have to plan and deploy more than 700 different ballot instances at all 33 early voting sites in the next 28 days.

Election day and early voting are two completely different things. Absentee-by-mail processing and in-person hand-marked paper ballots on election day are two different things. And the plaintiffs continue to conflate them, demonstrating their lack of understanding of the actual administration of elections.

Where is the training and logistical support for that system? Where are the election administration experts who endorse this plan to change Georgia's election system in a matter of weeks?

They say just turn off the BMDs and have the system

function properly. But there is no opportunity and they have shown nothing that this is feasible or possible on the time line that they have given this Court.

So I want to be absolutely clear the plaintiffs have shown no reason why any Georgia voter should doubt Georgia's election system. The plaintiffs have not shown -- I want to be so clear about this -- any reason why any Georgia voter should doubt Georgia's election system.

And, further, it makes no logical sense to exchange a suspected hypothetical security risk, which has never been shown in an actual election across -- for a well-known, well-documented, constant, easily accessible, and universal set of security risks associated with hand-marked paper ballots, especially making that change in a matter of days. It doesn't take sophistication to hack those. Only a Sharpie.

I want to remind everyone as we are wrapping up here where we are in this case after more than three years. We haven't yet had full discovery on these claims about BMDs and the Dominion system. We haven't had expert reports. We haven't had expert depositions. We haven't had summary judgment briefing.

This is a hearing held on a reduced evidentiary standard weeks before an election without the benefit of the adversarial process to test the documents and the testimony that plaintiffs have continued to add to the record in this

case. And without the Court being given the benefit of that process to sort through the very complicated election administration issues in this case and election administration is complicated.

Plaintiffs are seeking these sweeping changes. They are ultimately asking this Court to completely rewrite the State's election code and draft detailed election administration policies to supplant those that are authored and enacted by the General Assembly and the State Election Board.

Your Honor, as someone who represents election officials, I also want to be clear about this: This is already an extremely high degree of difficulty election. It is a presidential year. There is going to be record turnout. All of us can recognize that we are operating in the midst of a divisive political environment. And we are still in the middle of a pandemic that has upended almost everything about our lives.

Making further changes or adjustments to the election system like the plaintiffs propose at a large level like the BMDs or at a more administrative level like these pollbook changes, audits, scanners -- making those changes now is a recipe for disaster in an already challenging election year.

This Court should deny all the plaintiffs' motions, allow Georgia to go forward on the system chosen by its policymakers and designed by its election officials, and allow

this case to hear the rest of plaintiffs' claims on a normal 1 2 discovery track and a normal litigation track going forward. Georgians can and should have confidence in their 3 4 elections running the Dominion voting system for the 2020 5 election. Thank you, Your Honor. 6 7 THE COURT: All right. Let me just ask you a 8 question or two. Is there a contradiction between your 9 position that, on one hand, Georgians can rely on the absentee 10 ballot process but you cast doubt on the reliability of a hand 11 ballot process? 12 MR. TYSON: Your Honor, there are two -- there is not 13 a contradiction there because the chain of custody and the statutory and administrative structures around absentee ballots 14 have been in place for a long time. They are well established. 15 16 They are well understood. 17 Having lots of additional live ballots beyond just the emergency ballots that are in a polling place on election 18 19 day, that would be a completely new thing for Georgia to 20 implement. And that is a different setup than dealing with the 21 verifiable process you can use in the absentee ballot 2.2 situation. 23 THE COURT: With regard to -- again, this is not 24 against your time in any way. 25 But with respect to the experience of voters,

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including members of these organizations and the individual plaintiffs in coming in and having — basically facing challenges because they are either waiting in lines or there is a major — major obviously change in the introduction of a new system — and there were substantial issues in the June election, and there are continuing problems. And I'm not saying that they are going to continue. I know the State is trying to address these. But they were enormous and enormous in particular communities.

Why wouldn't the State under these circumstances -when it has a provision under its own rules for emergency ballots, why wouldn't the State truly make an arrangement for that that makes it real so that we actually on election day -we're not talking about before election day. But on election day that if these sorts of lines develop and that are a function also of not just, oh, we have got so many people coming -- because that is what we anticipate, that is what we want in a presidential election, and it is what we -- the State has a reason to expect -- that we -- that the emergency ballot process is used and that you are equipped to use it also or the precincts are equipped to use it because they also are able -quickly to be able to consult with a full printout and up-to-date printout of who has cast votes so that they only have to call about a limited number of ballots to the county office.

Why wouldn't that be an appropriate remedy in this case given the introductions of a lot of new machinery that at least as of this point has been shown from the last election -- serious election here in June have had a truly detrimental impact on people being able to easily exercise their vote at least in a number of population centers?

MR. TYSON: Your Honor, I think what you have outlined is essentially what the State Election Board rules require to happen. And I know for June 9, as an example -- I represent Gwinnett County. And in the Gwinnett elections, they were able to use all their emergency ballot supplies to open precincts when there was late delivery of equipment.

So I think what you find is maybe a training issue for poll workers, which I know that recruitment of poll workers has been a very high priority for the Secretary and for county election officials. I know there has been and there is evidence in the record from Mr. Harvey about the extensive updates to training of officials and poll workers on these various points.

And since the State Election Board rules require there be a paper backup, people can immediately begin checking in. That is what is supposed to happen. That is what the State Election Board rules require if the Poll Pads are not working and if the BMDs are not working they should go right to the emergency ballots or if the line is longer than 30 minutes.

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Those are the existing regulatory structure that needs to be implemented. And I know that there has been a very conscious focus of state and county officials to make sure that poll workers are ready and are trained on all of those points, including those items. THE COURT: Well, how are they checking people in if they -- if the Poll Pads are not working --MR. TYSON: Your Honor, they would --THE COURT: -- under the State's rules? Because I didn't hear that ever addressed other than what the plaintiffs have suggested. MR. TYSON: Yes, Your Honor. So the way the State rule would work is you would immediately begin checking in voters and the voters would be voters who were on the precinct's list. There would be an indication on the list if they have made an absentee ballot request up to the time that the list is prepared. But one of the challenges -- and I have never heard the plaintiffs give a good answer to this question is -- if, for example, the Poll Pads go down at noon and a voter who voted at 8:00 A.M. comes back, the paper list is not going to be updated for that fact. So the remedy is you check everybody in and any sort of alleged double voting that would take place can be handled

after the election through an election contest or some other

1 procedure. But that would be the way you would handle it. 2 And trying to -- the burden on the State that Mr. Harvey talked about for doing this updated printing, it 3 4 really doesn't address the plaintiffs' concerns except if the 5 Poll Pads don't work right at opening. THE COURT: Well, I think that there was the 6 7 alternative that he himself identified, which was not that the 8 State would print it but they would simply send basically an 9 electronic -- they would send it electronically to the county 10 for printing on that Saturday before the election. And he 11 seemed to think that was viable in my understanding of his 12 testimony. 13 MR. TYSON: And, Your Honor, I believe Mr. Harvey was checking to see if that was technologically feasible using the 14 eNet system. I have not gotten an answer back on that point 15 16 yet. But that, I believe, was what he said, that it sounded 17 logical but he wasn't sure if it was an existing report that 18 was already created or we would have to get additional 19 programming done to generate that. 20 THE COURT: Okay. Well, I assume that there is a straightforward answer then that you will be able to provide 21 22 today. I know you have been here with me. But I would like to 23 get the answer. 24 MR. TYSON: We'll do our best on that, Your Honor. 25 THE COURT: All right. And because, really, that

whole question of the -- what type of information is available at the local polls, I think the plaintiffs are correct that we have been discussing that really even from before December of 2019. And I have asked repeatedly, why is it not possible? Can't you-all discuss it together? And it seemed like such an important pragmatic step forward for dealing with -- we're going to experience one of the largest crunches. And also there is -- I mean, if you talk about confidence in the election, clearly having a capacity to address such a crunch on such a -- especially during a pandemic or really any time is an important issue. And it is important for us to know if they are capable of resolving it and that they don't care about my ruling and want me not to be here.

Then I had a question about the State audit rule. I understand the position of the State regarding, well, we are doing something and this is a step forward and this is -- we're using the State's position that there are disagreements in the field as to how the audit should be done.

What I don't just factually understand is one of the things that Dr. Adida says is basically if we -- if there seems to be something funky about the data essentially, he says, and it points to perhaps it not being reliable, well, we'll just take some more -- we'll just keep on -- we'll get another batch of ballots to look at until we can actually confirm.

Well, that is really part of what I was asking about

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     is the confirmation. Is this really simply going to be we're
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     going to get another group until we can say yes, it is.
     Basically it is never, oh, there is a problem. It is always
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    we're going to get the amount until we can actually confirm
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     yes, the way I heard his testimony.
               And I wanted to understand that. I wanted to
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    understand what the 90 percent confidence level was in this --
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     I think that is what is used in the rule. I don't have a
 9
     searchable copy of the rule.
10
               So I can't -- I read it. Let's see. It is a
11
    non-searchable version.
12
               Anyway, do you want to respond? You probably know
13
    what the confidence value is.
14
               MR. TYSON: Yes, Your Honor. I'm trying to pull it
15
    up myself as well here.
               I think, Your Honor, one of the things that might be
16
17
    helpful on this point -- I mean, the nature of a risk-limiting
18
     audit is that the review of the ballot -- the paper ballot
19
     continues to grow if you are not able to determine whether the
20
    risk limit has been met all the way up to a full hand recount,
     if necessary. I mean, that is kind of the way this ends is a
21
22
     truly enforceable risk-limiting audit can get that far where we
23
     have to go back and check every single -- every single
24
     component.
25
               And I believe our brief on the audit issue walked
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1
     through these issues in kind of great detail. So I would point
 2
     Your Honor --
 3
               THE COURT: All right.
 4
               MR. TYSON: -- to our brief on that point. But it is
 5
    because the nature of what ballot pulling risk-limiting audits
     such that you are looking to see whatever that risk limit is
 6
 7
     set at if you can achieve it based on the review of the paper
 8
    ballots that you have. If the answer is no, then you continue
 9
     counting -- hand counting up until a full manual recount of the
10
     entire state, if necessary.
11
               THE COURT: Well, as soon as you hit -- let's say it
12
     is 90 percent, which is what I believed it was. As soon as you
13
    hit 90, you stop? Or -- because it might be that at that point
14
     if you added another 5000 you are back at 85 percent.
               MR. TYSON: Yes, Your Honor. This is -- I found the
15
16
           It is ten percent. A risk limit of not greater than
     rule.
17
    ten percent.
18
               And the way -- this, again, gets into statistics that
19
     are far beyond my ability to comprehend them. And the Arlo
20
     software that the Department of Homeland Security worked with
     VotingWorks on in development does this kind of background
21
22
    processing so you can determine based on the random sampling
23
     that you have done whether or not you have reached that risk
     limit or not.
24
25
              And as Dr. Adida explained and actually I believe
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Dr. Stark explained too in his supplemental declaration, you recognize that that initial sample may not be quite right. But like with pulling or other statistical processes, you can reach a very high confidence level based on a subset of the entirety of the ballots. And if you can't reach that, that is where you continue growing your sample size as needed all the way.

THE COURT: Is there a reason why -- and I discussed this particularly with Dr. Adida -- you never actually compare the mark -- the barcode on a particular ballot with the selections? You know, if there is a chance as we -- as we have discussed before that the barcode mark is, in fact, imparting a different number than the actual selections and that that is one variation of malware that could occur or perhaps a function, why wouldn't something as fundamental as that be looked at on an individual ballot? Because we're not -- as he testified, that is not part of the process.

MR. TYSON: And, Your Honor, I may be misremembering Dr. Adida's testimony, but I thought that was part of the process. Because when Mr. Rayburn explained the process in March that the State was using, there was a pulling up of the ballot. You were looking at both the audit mark, the human readable portion. So the audit mark is the machine's interpretation of what the QR code would be. And you were determining from that if -- what is the human readable portion. Are we counting that?

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1
               So I may be misrecalling the testimony on that point.
 2
     But that is my recollection on that, that that is part of the
 3
     review.
 4
               THE COURT: Well, I asked him specifically did he --
 5
     would you review the QR code again and see if it -- if it had
 6
     imparted other information. And he said no.
 7
               But we can all look at the transcript. I understand
 8
    what you are saying -- what Mr. Rayburn is saying. But that
     was at -- it is a variation on this in light of also the work
 9
10
     that Dr. Halderman was doing to see with the QR codes.
11
               MR. TYSON: Yes, Your Honor. I think they are not
12
    going to rescan the ballots and see what the QR reading is.
13
     That -- I mean, that may be what Dr. Adida is referring to.
14
     But, anyway, I --
               THE COURT: Well, he said he just -- we didn't need
15
16
     to go back and look at that on an individual ballot basis. Of
17
     course, he wasn't going to -- so that is what I'm getting at.
18
     All right. Because that was specifically what I was asking
19
     about is are you going to check the actual selections on
20
     this -- on this ballot versus the QR code. And he said no.
21
     And that was confounding to me as a matter of even for security
22
     for -- I mean, people's sense of confidence. But maybe there
23
     is some other explanation.
24
               MR. TYSON: And, Your Honor, I know you had a
25
     question earlier as well about tracking people who bring their
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1
    ballot back to the ballot marking devices to say that something
 2
     is not right about them. We were able to confirm with the
     Secretary's office there is a spoiled and unaccompanied ballot
 3
 4
     recap sheet that is collected with the information from
 5
     counties.
               They don't report by machine, but they do report by
 6
 7
    precinct and by ballot combination. So if you saw a particular
 8
    precinct and ballot combination where there was an extensive
 9
     number of errors, you could go back and work through and get
10
     down to at least a grouping of machines from there.
11
               THE COURT: Okay. Thank you. All right. Thank you
12
    very much.
13
               MR. TYSON: Thank you, Your Honor.
14
               THE COURT: Mr. Cross?
15
               MR. CROSS: Your Honor, yes. Before I start,
16
    Ms. Cole, if she could pull up some slides that I'll reference.
17
               If Your Honor wouldn't mind, I would appreciate a
18
     little latitude on the time because there was a lot covered
19
     there.
20
               Ms. Cole, is it possible to go to slide view?
               THE COURT: Is there something other than this first
21
22
     screen?
23
               MR. CROSS: This will work.
24
               Ready, Your Honor?
25
               THE COURT: Yes.
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CLOSING ARGUMENT

MR. CROSS: Your Honor, the closing that Mr. Tyson gave is so far removed from the facts of this case it is hard to know where to begin. But let me just start with this notion that we only offer recycled theories and speculation.

We are the only ones who have examined the new BMD system who have knowledge it exists, that it is new, it is different, and it needs to be inspected. Only us. Not one election security expert has ever examined this system for the State. Not one endorses it. They could not find one to endorse this system.

On this issue of voter confidence, I will say this,
Your Honor. For Mr. Tyson to say in the public portion of this
hearing that we have shown no reason to doubt Georgia's system,
when he knows what the State has concealed during the course of
this hearing by their confidentiality objections, which we
think are totally unmerited -- to say that to the people is at
best misleading. And I will leave it at that.

The first slide, Your Honor, the entire defense that the State has offered collapses. They have said that there is no burden or only a slight burden on voters and they say for two reasons. This is in the opening. Voters have the opportunity to verify their ballots that are counted by the scanners. That is simply not true. It is not even disputed that that is untrue. You can't verify QR codes. And the

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1
     research their own expert put into the record showed that
 2
     voters are not adept at verifying ballots.
               The second fact that they rely on or allegation is
 3
 4
     that the ballots are then audited using a risk-limiting audit.
 5
     It is not disputed that that also is untrue. There is a single
 6
     audit for a single statewide election every other year.
 7
               So by their own argument, Your Honor, there is a
 8
     heavy burden on voters in this state.
 9
               Next slide. Ms. Cole, can you go to the next slide?
10
     Sorry.
11
               Just briefly on this, Your Honor, we started here.
12
     They did not ask a single witness if this was true, that all
13
     we're really asking for is to remove two pieces of equipment.
14
     The most that we heard from any of their witnesses, Your Honor,
     was, well, it may also involve some additional training. But
15
16
     we know that is not accurate because they are already trained
17
     on emergency paper ballots. It uses the same scanner.
18
     Everything is the same from the moment they get the ballot.
19
               And I'm going to jump ahead for time, Ms. Cole.
20
     you would just jump to slide three, if you would.
21
               While she pulls that up, it is important to keep in
22
    mind, Your Honor, that what we learned in the June 9 elections
23
     is hand-marked paper ballots were used as emergency ballots
     across the State.
24
25
               The next slide, Ms. Cole. Sorry.
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Cobb County, one of the biggest counties -- this is one of the things we brought out during the course of the hearing, Your Honor -- they had to use hand-marked paper ballots across many precincts. This is from Ms. Eveler in an email that we put into the record.

Your Honor is to think that the June 9 primary was not a bigger disaster than it was because you had the foresight a year ago to require an emergency backup plan. Without that, the election on June 9 would have come to a halt at precinct after precinct. Fortunately, the infrastructure is now there, the people are trained, the paper ballots are there. All we're asking for is just more ballots.

And, Your Honor -- Ms. Cole, if you would jump to slide five. Next slide.

Mr. Barron himself took the stand and acknowledged that at least as to election day having hand-marked paper ballots would be simpler and easier. He practically asked Your Honor to order it because the State won't allow him to do it. And as the election director for the biggest county, if Fulton can do this, there is no question that all the other counties in the state, which deal with far fewer voters, can do it, Your Honor, at least on election day.

Next slide.

And what did Mr. Harvey say about this? He said the only thing he could come up with that would be tricky or

difficult is you would have to have a few stacks of paper bigger than you normally have. Because instead of bringing out paper ballots of ten percent of the anticipated vote, you would have to have more. That is it. That is the only thing they could come up with that they would have to do beyond what they already do.

Next slide.

Their only other argument on this is to say, well, maybe, kind of sort of we think we might not get enough ballots. But we never asked anyone because we are really scared that, of course, every ballot company in the dozens of them across the country would, of course, commit to printing these ballots. They don't ask the question because they know the answer, Your Honor. There is no evidence of a ballot shortage.

Next slide.

And they didn't tell Your Honor that the counties can print the ballots themselves. Every county has at least one printer. And some of them have many more, 200 to 250 ballot printers on demand across the State that can print any ballot style that they need.

So the point of feasibility, Your Honor -- their entire argument is not supported by the facts, which is why Mr. Tyson just does not address the facts in his closing.

Let me turn briefly to security, Your Honor.

1 Next slide. 2 Contrary to what Mr. Tyson said, there is, in fact, an established, recognized standard in the election security 3 4 field for election technology like the system here. 5 Dr. Gilbert acknowledged it. It is called software 6 independence. You have to be able to determine whether your 7 system has been compromised in some way or simply isn't 8 operating right. If you cannot do that in a reliable way, then 9 it is not software independent. 10 Every expert who has examined this system -- our 11 experts -- said it is not software independent. Not one expert 12 from the defense said it is. Dr. Gilbert said it might be if 13 we assume that it is air gapped. And we're going to see that 14 it is not. So here you have the State central defense that we 15 16 have heard time and time again. There is no evidence that the 17 old system was affected by -- infiltrates the new. 18 Next slide. 19 They even represented to Your Honor before that it 20 was air gapped. They were very precise about that. This is 21 State's defense counsel. But Dr. Coomer never said that or 22 anything close to air gapped. We now know --23 Next slide. 24 -- that it is not even close to air gapped. This is 25 the same problem that we dealt with two years ago when

Mr. Barnes disclosed in a hearing that he was plugging a USB drive into his internet-facing computer and then plugging it in to the GEMS system.

Now they are telling people across the State -Mr. Tyson did not characterize this email accurately. He said,
well, maybe it is one USB in one county. Look at what is being
asked for. The counties across the state, what are they
supposed to do for USB drives? Not just for L&A exports but
for election day exports. Just use the ones from the previous
system. They say, well, we don't really know what he means by
previous system. There is only one prior election system in
the state. And if Mr. Barnes had another explanation, we would
have seen an 11th hour declaration on that this morning too.
But we didn't. Everyone knows what this is about.

And it shows this system is just as compromised and just as infected as the last one. And they like to tell Your Honor there is no evidence of any hack on the old system. That is just not true. Logan Lamb hacked it multiple times. Who knows what else -- what anyone else was able to do with nefarious intent.

The election director, Mr. Harvey, didn't even mention any examination of this system. And the only thing I'll say on this, Your Honor, because I haven't touched on it is, Mr. Tyson asked Dr. Halderman if he agrees that well-run organizations should constantly adjust to security threats.

1 That is the point of our case. What we have 2 learned is that in two years they have not done that at all. Your Honor directed them last year to do that. They have not 3 4 done a single security assessment of this case, apart from one 5 they have withheld, which they said was only created for this case. We have never seen it. No regular periodic -- not a 6 7 single assessment of this case in two years. 8 Mr. Tyson's own argument, that does not meet any kind of 9 professional standard for security. 10 THE COURT: You don't mean of this case? You mean of 11 the BMD system or the revision? 12 MR. CROSS: Yes. Thank you. 13 Next slide. Just briefly, Your Honor, the only person they offer 14 who has actually looked at any part of this system is Mr. Cobb. 15 16 He is not an election security expert. He is not a security 17 expert at all. And every single thing he offered in his 18 original declaration to say the system is secure -- every 19 single allegation proved to be wrong, and he had to abandon 20 them. He said you can rely on hash values. That was wrong. 21 22 Completely abandoned in his next declaration. He said keys 23 are -- barcodes are encrypted. Absolutely wrong. And ultimately he was forced to admit in the last bit of testimony 24 25 here, Your Honor, that the time an election is happening when

we're underway the BMD system has everything it needs to generate fake QR codes that no voter can detect. And then nothing they have offered is going to detect when you have got one audit for one election every other year.

Next slide.

Mr. Cobb also confirmed the simple attack that someone can walk out with their ballot, as voters often do because they are confused when the language says cast ballot instead of print ballot -- but a nefarious actor could walk out with it making many, many photocopies and distribute those among people who have not yet come in to vote. And just because the system will tabulate anything that is run through it that has the QR code, it is easy to hack. This is stuffing the ballot box.

Note the contradiction in their defense. They say, well, you can't use hand-marked paper ballots because someone -- insider they like to say -- so they are talking about an election worker or someone at the state or county will manipulate those.

Well, that same argument is why you can't rely on the BMD system that they have offered up, Your Honor. The same thing can happen. And the only defense they offer -- security they offer for the equipment is to say, well, don't worry, we have locked it down. Someone would have to come in and embed malware. Someone would have to come in and embed the small

computer that Dr. Halderman developed.

But they are the ones that keep telling you you can't trust insiders, that there can always be an insider that will do that with hand-marked paper ballots.

And changing individual hand-marked paper ballots one at a time, like they say, with a Sharpie, that is going to take a whole lot more time than simply embedding a small computer in a printer that no one sees or plugging a USB stick into a BMD or an EMS server that then propagates across the system.

Next slide.

And we know that the system is not hardened. They have no response as to why election computers and servers are loaded up with video games that don't come standard that someone decided to put on there. We are very far from a world where this system is in any way secure.

Let me just close with audits, Your Honor. I think Your Honor sees where we are going.

Next slide.

I think Your Honor hit the nail on the head on this. This is from Mr. Tyson's opening statement. Mr. Tyson from the start of this case acknowledged that audits are absolutely irrelevant to the question that is before Your Honor right now. They are not meaningful at all, which is the word Your Honor used.

This is what he said, talking about the plaintiffs,

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second to last slide.

we cannot have an injury based on the outcome of an election, as the Eleventh Circuit made clear in Jacobson, only their own votes being counted. And why does that render RLAs entirely irrelevant? Because every expert in this case agrees, including Dr. Adida, that RLAs serve a singular purpose --Next slide. -- to validate election outcomes. That is it. That is undisputed. So even if they had a robust RLA process across the state -- and they don't. What they have -- it would be laughable if we weren't talking about elections. All they can do is tell you that the election outcome might be right. does not ever validate a vote. So they have nothing to offer this Court in a network, an environment that is incredibly compromised that is easy to hack and manipulate. They have nothing to offer Your Honor to say we can validate any individual vote. And Mr. Tyson was right from the start of the trial. That is what this case is about. election outcomes. So obviously if we can validate every counted vote, then the election outcome flows from that. the injury that we're after is the one that Mr. Tyson identified, election outcome -- RLAs are irrelevant to that. I will just touch briefly on them because we spent so much time.

Ms. Cole, if you would just jump to slide 19, the

The two points on this, Your Honor. 1 It is worth 2 noting --3 Next slide. 4 -- none of their experts are willing to endorse or 5 even comment on the RLA process that has been adopted. 6 told Your Honor in their brief that Dr. Adida's team helped 7 design the Georgia process. But when he was asked just a 8 singular question about that process, he said, I don't know 9 enough about the details of those plans to even comment on 10 The man who has supposedly designed it has so little 11 understanding of it he couldn't even comment on them. 12 Dr. Gilbert, whose original declaration last year 13 went on for pages about RLAs, now says I'm not going to offer 14 any opinions on RLAs in Georgia. Because what they have adopted is so absurd that no self-respecting expert will even 15 16 go near it. That is where they have left themselves. No one 17 endorses this, just like the system. 18 Lastly, Your Honor, it cannot be overstated --19 Next slide, Ms. Cole, if you would. 20 It cannot be overstated why RLAs, even in a reliable system, simply cannot work with a BMD. This is Dr. Gilbert. 21 2.2 This is the Rice study that Dr. Gilbert himself offered up to 23 the Court from his own declaration. He represented to the Court that the ability of voters to actually detect 24 25 manipulation of the voter choice is quite good. That is when

he said it is okay to rely on BMDs because they are good at verifying their ballots. And he cites this Rice study in that discussion in his declaration.

But what he did not tell Your Honor is that the 25 people that he references there were out of 108. He just didn't disclose to the Court that the very study he cited is contrary to what he represented. That what it showed was only 23 percent of voters were able to -- even made an attempt to verify the ballots.

So in the world of BMDs, you are talking a very small percentage of voters who can even try. And then among that small quarter, a substantial portion of them were not good at even detecting errors at all or maybe they detected one. In fact, once we brought this out and he was asked about this particular study, he said, I don't even want to be associated with this study because it is not my work. This is the study he directed Your Honor to in his written testimony in this case.

Let me close with this, Your Honor. In 1954 in Brown vs. Board of Education, the Court said, you cannot segregate schools. A year later, states were back before the Supreme Court saying this is really hard, dragging their feet, and delaying the desegregation. The Supreme Court was quite clear. This is a fundamental right. Do it with all deliberate speed. That is what the Supreme Court said. Get it done with all

deliberate speed.

And they also said if you are going to come in arguing that this is burdensome or difficult then the burden is on you as the State. Because if you are going to tread on a fundamental right like this or you are going to make allegations of burden, then it is on you to prove those up.

And the same logic holds here, Your Honor. We embrace our burden. But our burden -- our evidence cannot be rebutted by simply Mr. Tyson or the other lawyers just making claims, allegations for which they have no evidence, things like, well, maybe we can't get printers or we can't get ballots. Everything that they offer has no substantial evidence behind it or any evidence.

And what we are asking Your Honor is as fundamental as the right to education. It is more so. Because every right starts with the right to vote, as the Supreme Court has indicated.

So what we are asking for, Your Honor, is a system that is the only system known today, particularly in the environment in which the Georgia elections operate, in which voters can have confidence. It is simple. It takes the existing infrastructure, the existing training, and simply rolls it out as they already are. They just need more ballots. That is it.

Thank you.

1 THE COURT: Thank you. Well, let me ask you one or 2 two questions. 3 MR. CROSS: Yes. 4 THE COURT: Mr. Tyson accurately points out though at 5 a preliminary injunction hearing the plaintiffs bear a very high substantial burden of proof and in this context to show 6 7 that their right to cast a vote has been burdened. And it is 8 not as you all say -- everyone says here it is not about necessarily election outcome but about the burdening of the 9 10 vote and the exercise of it. 11 And it is also about in that connection that your 12 vote counts in the same way that anyone else's counts, that it 13 is -- that that is part of the equation. I might think that some of the policies or regulations for handling of the 14 election processes by the State are inadequate in some way. 15 16 Some of them are perhaps very inadequate. Some of them 17 basically are still reflecting change that was -- never had 18 occurred before. 19 But -- and I might, you know, have a different policy 20 choice on all sorts of things. But why should I say at this juncture -- what do you think is the most compelling point you 21 22 have that the plaintiffs have presented that the right to have 23 a vote cast and equally counted -- that individual voter has 24 been burdened impermissibly, with this high standard in mind?

MR. CROSS: To that I would say, Your Honor, that the

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     Supreme Court has been clear that burdening the vote unlawfully
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     includes eroding voter confidence. If voters cannot have
     confidence in their vote, then that is a constitutional
 3
 4
     deprivation.
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               With that standard in mind, I would say, Your Honor,
    what we have presented is an environment specific to Georgia --
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 7
     and let me be clear. Mr. Tyson has said before we're asking
 8
     Your Honor to invalidate BMDs across the country. Not so. Our
 9
     case is about Georgia. It is specific to the environment here.
10
     We have --
11
               THE COURT: What are you pointing to when you say
12
     that it is enough to have invalidated confidence -- I mean, it
13
     is certainly something -- all everyone here has been aware of
     and concerned about perhaps, frankly, for everybody who cares
14
     about our society and its health and well-being and future.
15
16
               But tell me what case you are pointing to when you
17
     say it is sufficient that they -- the way that they have
18
     managed things have undermined voter confidence when they all
19
     look to you and your clients as having undermined confidence --
20
    voter confidence.
21
               MR. CROSS: Let me make sure I understand Your
22
    Honor's question.
23
               THE COURT: Well, you, first of all, have said the
    most important thing is that the State has -- in this
24
25
     Georgia -- particular Georgia environment the State has
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1
     affected the right to vote because it has undermined voter
 2
     confidence because of the way they have handled the election
     system. And I'm asking you what case do you rely on for that
 3
 4
    proposition.
 5
               MR. CROSS: Oh, what case we rely on?
               THE COURT:
 6
                           Yes.
 7
                           I'm just going to pull that up, Your
               MR. CROSS:
 8
             It is the Supreme Court case that I referenced in my
     Honor.
 9
     opening.
10
               MR. BROWN: That is Saylor.
11
               MR. CROSS: Yes. Thank you.
12
               I guess to get to your initial question, Your Honor,
13
     that what is the most compelling evidence or fact, I would say,
     one, you have Dr. Halderman's demonstration and then you have
14
     that within an environment that has two pieces to it.
15
16
               One, the recognized advanced persistent threats from
17
     sophisticated nation states like Russia. So there is no
     question that they are trying to get in. We now understand
18
19
     they actually did get in in Florida, embed malware.
20
               Then you have got the specific environment in Georgia
     where they have not done any assessment -- any security
21
22
     assessment in the state in two years, including with a
23
    brand-new system.
24
               And it is difficult to comprehend how you can roll
25
     out a new system that has never been used on this -- on this
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scale in any other state before and not bother to have a single election security firm or expert come in and say, well, let us just look at it, even on a cursory level, to see does it work as it is supposed to. Is it hardened in the way that it needs to be?

There is nothing I can imagine we would ever agree. You wouldn't allow people to put vehicles on the road without getting some sort of safety testing. We don't allow the state to build bridges without some sort of safety testing. There is nothing that we allow a government or private company to do that has this kind of risk without not some basic safety and security testing.

And they are asking voters to go to the polls without ever having anyone look at it. And I said this before, but there are only two possible explanations that I can come up with. One is: They are as terrified as we are of what they will find, which means they also don't have confidence in the system as they claim, or they know how bad it is and they are just turning — they are keeping their heads in the sand, as Your Honor told them two years ago not to do.

But that for me is the most powerful point, Your Honor. We are beyond the dispute that the system is relatively easy to compromise for the ones who are trying to compromise it, very sophisticated actors. And no one has said -- no one -- this system works and it is reliable.

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               I can't think of any other situation where we would
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     take something as fundamental as elections and say it is okay
     to go forward under those circumstances. Just don't test it.
 3
 4
    Nothing comes to mind.
 5
               THE COURT: Okay.
               MR. BROWN: Your Honor, this is Bruce Brown.
 6
 7
    may add one thought.
 8
               The confidence that we are looking for is not a false
 9
     confidence. It is not the confidence that will paper overrule
10
     underlying deficiencies. It is true confidence. And today if
11
    a voter votes on a BMD and then asks the State will you count
12
     this correctly, if the State answered honestly, they would have
13
     to say we have no idea. We will never be able to tell you if
14
    we did or not. That is the --
15
               THE COURT: Well, I'm sure Mr. Tyson would disagree.
16
              MR. TYSON: Yes.
17
               THE COURT: But thank you.
18
              All right. Thank you, Counsel.
19
              MR. CROSS: Thank you, Your Honor.
20
               THE COURT: All right. Do we have your exhibits?
                                                                  We
21
     don't have to do all of this publicly. Are there exhibits
22
     that -- we don't have Mr. Martin here taking down if exhibits
23
     have been admitted or not. And Ms. Cole has a job -- many
    different roles.
24
25
               But you haven't identified which exhibits have not
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1 gotten in that you were trying to get in that I had a hold on. 2 MR. CROSS: Yes, Your Honor. I think there are a We filed something last night. Let me just look at what 3 may still be outstanding. 4 5 THE COURT: Ladies and gentlemen, while counsel are 6 looking at this, I don't think we have any further substantive 7 proceedings here in terms of your observation. You are welcome 8 to stay while we are talking about exhibits. But no one will 9 be offended if you leave here. 10 I'm just trying to be -- and I appreciate that 11 everyone has been so engaged and interested. And I'll not be 12 announcing the decision today. These are challenging issues, 13 and they are challenging issues also in the context of under governing law when there is an election so soon at this time. 14 But the reason I had this hearing is because I think 15 16 it is important that all circumstances be aired, whatever the 17 decision is, and -- and I'm -- frequently a federal district 18 court trial judge is not the final word on anything. But I appreciate that there has been so much interest 19 20 in this. It is probably one of the more vital manifestations of people engaged in democracy -- in the practice of it. 21 22 Thank you very much for attending and for your 23 interest. We're sorry again about the Zoom blast that happened on Friday. And it is sort of the byproduct of still trying to 24

maintain an open society that things can go wrong like this.

25

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1
     And hopefully one day again we'll get to see you in open court.
 2
               Thank you.
               MR. CROSS: Should we quickly touch on the exhibits,
 3
 4
     Your Honor?
 5
               THE COURT: Yes.
               MR. CROSS: The ones that I think that are not yet
 6
 7
    moved or not yet admitted are PX 1, which is a Fayette County
 8
    ballot. I think, Bruce or Rob, that was one of you guys --
 9
              MR. BROWN: That was with -- with Mr. Gilbert as just
10
    an example of a Fayette County ballot. I don't think there was
11
    an objection to it.
12
               MR. TYSON: No objection, Your Honor.
13
               THE COURT: All right. It is admitted.
              MR. CROSS: Then PX 9, this was the overview from
14
     Dominion that Mr. Cobb quoted in his declaration for the QR
15
16
     codes being encrypted. We only pulled up the cover publicly
17
    because it is designated confidential. But we would move the
18
     entire document in so Your Honor has it.
19
               MR. McGUIRE: This is one that Mr. Skoglund talked
20
    about as well.
21
               MR. TYSON: No objection as long as the document
22
     itself stays under seal. The cover page is fine.
23
               MR. CROSS: Then the last two, Your Honor,
    Plaintiffs' Exhibit --
24
25
               THE COURT: All right.
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1
              MR. CROSS:
                          I'm sorry.
 2
              THE COURT: What is being admitted on PX 9 -- I'm
     sorry -- that you-all agree on?
 3
 4
              MR. CROSS: The cover page can be made publicly
     available. But the State wants the rest under seal.
 5
 6
              THE COURT: All right.
 7
                          The last two, PX 53, that was an
              MR. CROSS:
 8
     emergency ballot with some hand-marking. I think, Bruce or
 9
     Rob, one of you guys put that up.
10
              THE COURT: Any objection?
11
              MR. TYSON: No objection, Your Honor. I think that
12
     is the ballot procedure from that Secure the Vote document.
13
    But that is fine. No objection.
14
              MR. CROSS: Thank you, Bryan. I think that is right.
              THE COURT: Right. It is admitted.
15
16
              MR. CROSS: Last one, PX 56, this is another Dominion
17
    document where again we only put up the cover. Rob, I think
18
    you had this one.
19
              MR. McGUIRE: 56?
20
              MR. CROSS: There were two Dominion documents that we
    put the cover up on. One was the overview Mr. Cobb quoted, and
21
22
    then there was another one.
23
              MR. McGUIRE: I don't -- Bruce, I don't know if you
    used 56. I don't think 56 was one of mine. We used 54.
24
25
              THE COURT: Was 54 admitted?
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1
               MR. McGUIRE: I believe it was.
 2
               MR. CROSS: Yes, 54 was admitted.
               THE COURT: Well, like, for instance, 53 is admitted
 3
 4
    or the cover page in PX 9 -- you are going to have the rest of
 5
     it be under seal?
               MR. TYSON: Yes, Your Honor.
 6
 7
               THE COURT: All right. Okay. Fine.
 8
               All right. Well, if you figure out about 56, you can
 9
     let us know.
10
               Mr. Tyson, (unintelligible) --
11
              MR. TYSON: I'm sorry, Your Honor. You broke up.
12
               THE COURT: Are there any of the defendants' exhibits
13
    that need to still be admitted?
               MR. TYSON: I believe we had Exhibit 11, which was
14
     the hand recount story, and there was an Exhibit 12 that was
15
16
     the stills from the video that we'll file under seal.
17
               THE COURT: Right. What is the hand recount story?
               MR. TYSON: From Savannah where the state house -- I
18
19
    talked to Dr. Halderman about it. The hand recount of the
20
     state house election.
               THE COURT: I have to review that before I let it in.
21
22
     It is a newspaper article. After all, you were objecting to
23
     also even just actual academic studies coming in. You can
24
     examine somebody without having an article come in itself.
25
               So I'm not inclined to. But I will look at it if you
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1
     want.
 2
               Holly, do you know which one that is?
               What was the exhibit again, Mr. Tyson? And I will
 3
 4
     look at it.
 5
               MR. TYSON: It is filed at 893-2.
               THE COURT: All right. I'll look at it afterwards,
 6
 7
     and I will let you-all know. But I'm not inclined to admit it.
 8
               MR. McGUIRE: Your Honor, we used DX 4. I'm not sure
     if that was admitted or not. But we would --
 9
               THE COURT: What was DX 4?
10
11
               MR. McGUIRE: It was the -- Michael Barnes' draft
12
     document on scanner settings.
13
               THE COURT: Are you seeking to admit it?
14
               MR. McGUIRE: If it isn't already admitted, we would
15
     seek to admit it, yes.
16
               MR. TYSON: We don't have an objection to that, Your
17
     Honor.
18
               THE COURT: All right. Admitted.
               MR. McGUIRE: We had also submitted 61 -- PX 61 and
19
20
     PX 62. Those are the articles that Mr. Tyson was just
     referring to, I believe.
21
22
               THE COURT: All right. I'll look at those. The one
23
     I was referring to?
24
               MR. McGUIRE: Yes, ma'am, you were referring to.
25
               THE COURT: Well, I'll look at all three articles,
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1
     and I'll let you-all know.
 2
               MR. TYSON:
                           Then, Your Honor, also those stills from
     the inspection video under seal but --
 3
 4
               THE COURT: All right. You were going to get back to
 5
    me this afternoon about the question I posed to you; right?
               MR. TYSON: Your Honor, I have already sent it to the
 6
 7
     Secretary's office. So they are working on it right now.
 8
               THE COURT: All right. Thank you very much. I know
 9
     it has been a lot of work for you-all. I appreciate the
10
     excellent really work you have done and your advocacy and the
11
     strength of your beliefs on all sides and commitment to your
12
     clients.
13
               And if we have any questions, I will let you know.
     It has been a challenging thing to do this by Zoom. And I very
14
    much appreciate everyone's professionalism as we have tried to
15
16
     navigate together over the last period of time, in the
17
    particular last few days.
18
               Is there anything else we should address at this
19
     time?
20
               MR. CROSS: Your Honor, I think we may have figured
     out the exhibit, just while we have got you. So Exhibit 56 --
21
22
     I think I have it confused. My apologies.
23
               Exhibit 56 is the November 2019 Democracy Suite
24
     system overview. I think that is the one we used and the one
25
     that Mr. Cobb quoted from. Exhibit 9 is -- let me pull it up
```

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1
    now.
           That is the Windows build document.
               MR. McGUIRE: That one is admitted, I think.
 2
               MR. CROSS: Right. That was the one that --
 3
 4
               THE COURT: You are looking to admit the
 5
     November 2nd, 2016, documentation that Mr. Cobb relied on?
 6
               MR. CROSS: Yes. It is 2019. But that is right.
 7
    Again, it would only be the cover page because it is designated
 8
     confidential. So Exhibit 56, the cover page could be public
 9
    but the rest would be under seal, according to the State.
10
               THE COURT: So let me ask you this just in terms of
11
    the -- did you give them to us as two separate documents all
12
     the times that you are saying just the cover page or are we
13
     supposed to be scanning it ourselves to make these? How do you
14
    perceive this happening pragmatically.
               MR. CROSS: We, I think, have publicly filed all of
15
16
     the exhibits. And for Exhibit 9 and 56, we filed just the
17
     cover sheet.
18
               THE COURT: All right.
              MR. CROSS: I'll confirm that.
19
20
                          Everything else under seal?
               THE COURT:
                           Then the rest would be under seal with
21
               MR. CROSS:
22
     the Clerk.
23
               THE COURT: All right. Were they filed under seal
    before?
24
25
               MR. CROSS: No. We will put in a sealed filing for
```

```
1
            I don't think we have done that yet.
     those.
 2
               THE COURT: Is that okay with you, Mr. Tyson, and is
     there anything that you were submitting that was sealed?
 3
 4
               MR. TYSON: That is fine with us, Your Honor. I
 5
     think the one we have under seal is the Exhibit 12. So I will
     file that under seal here shortly.
 6
 7
               THE COURT: All right. Ms. Cole, is there anything
 8
    else that you can spot or think of?
 9
               LAW CLERK COLE: No.
10
               MR. CROSS: Your Honor, I guess one other question.
11
    To Mr. Brown's point at the start of the day that the
12
    plaintiffs will move to unseal this, we don't want to distract
13
     from the far more pressing point that Your Honor needs to make
14
    a decision on the motion.
               What is your preference of timing and how we would do
15
16
     that? We do think it is --
17
               Go ahead.
               THE COURT: I don't have a preference. I have to
18
19
     deal with what you-all have put in front of me.
20
               MR. CROSS: Right.
               THE COURT: And I have -- you know as with -- well, I
21
22
     don't know. I think Mr. Tyson must be dealing with elections
23
     full time and nothing else and his colleagues. But I do have
    plenty of work that is not elections that I have got to get to.
24
25
               So, you know, I realize on a time-sensitive basis you
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1
     want me to rule on that. So, you know, you just will have
 2
     to -- obviously proceed as soon as you can. But I can't tell
    you that I'm going to be able to rule on it that much faster.
 3
 4
     I mean, I'm happy to give you-all a shorter period of time
 5
    because you want to deal with it. But I can't predict exactly
 6
     when I will be able to turn it around.
 7
              MR. CROSS: Understood.
 8
              MR. BROWN: Thank you, Your Honor.
 9
               THE COURT: Yes? Mr. Brown, were you saying
10
     something?
11
               MR. BROWN:
                          No.
                                I just said thanks.
12
               THE COURT: I think that is probably -- there is a
13
     lot that the State has to deal with -- State counsel. So I
     think the better thing is to file it ASAP and then I just won't
14
    grant an extension and they can have their 14 days. That seems
15
16
     to me the more sensible way of proceeding, since everyone is
17
     under enormous pressure just to get this hearing happening.
18
                          Thank you, Your Honor.
               MR. CROSS:
19
               MR. TYSON: Your Honor, also we just want to say on
    behalf of all of us on both sides thank you to Ms. Welch and
20
    Ms. Cole for heroic work in this. Thank you.
21
22
               THE COURT: They were terrific.
23
               All right. If I have any other questions, I will let
24
     you-all know. Thank you also. Be well.
25
               MR. CROSS: Thank you, Your Honor.
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MR. TYSON: Thank you, Your Honor.
 1
               MR. BROWN: Thank you.
 2
               THE COURT: All right. Take care. Bye-bye.
 3
                      (The proceedings were thereby concluded at 3:25
 4
                     P.M.)
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1	CERTIFICATE
2	
3	UNITED STATES OF AMERICA
4	NORTHERN DISTRICT OF GEORGIA
5	
6	I, SHANNON R. WELCH, RMR, CRR, Official Court Reporter of
7	the United States District Court, for the Northern District of
8	Georgia, Atlanta Division, do hereby certify that the foregoing
9	198 pages constitute a true transcript of proceedings had
10	before the said Court, held in the City of Atlanta, Georgia, in
11	the matter therein stated.
12	In testimony whereof, I hereunto set my hand on this, the
13	15th day of September, 2020.
14	
15	
16	
17	SHANNON R. WELCH, RMR, CRR
18	OFFICIAL COURT REPORTER UNITED STATES DISTRICT COURT
19	ONTIED STATES DISTRICT COOK!
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